REPORT

ON THE

ADMINISTRATION OF BENGAL

1921-22.

CALCUTTA :
THE BENGAL SECRETARIAT BOOK DEPOT.
1923.

[*Price, Rs. 3.*]

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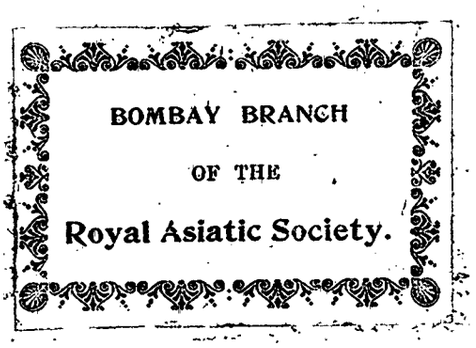

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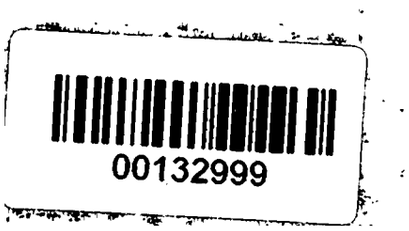
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REPORT FOR THE YEAR 1921-22.

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MAP.

MAP OF BENGAL.

ADMINISTRATION OF BENGAL, 1921-1922.

PART I.—GENERAL SUMMARY.*

THE RIGHT HON'BLE THE EARL OF LYTTON, P.C., G.C.I.E., succeeded the RIGHT HON'BLE THE EARL OF RONALDSHAY, G.C.S.I., G.C.I.E., as Governor of Bengal, on the 28th March 1922.

2. **Legislative Council.**—The Bengal Legislative Council sat for sixty days during the year, which was one of considerable legislative activity. Its work, as in 1921, was dominated largely by the serious financial difficulties of the province, and three of the most important pieces of legislation which occupied its attention in the early part of the year were fiscal measures, viz., (1) The Bengal Court Fees (Amendment) Bill, (2) the Bengal Stamp (Amendment) Bill, and (3) the Bengal Amusements Tax Bill, which were intended to meet the deficit in the provincial revenues. Their passage through the Council was warmly contested by a small minority. Other legislative projects placed before the Council were:—

(*i*) the Bengal Children Bill, the Bengal Village Chaukidari (Amendment) Bill, the Calcutta Improvement (Amendment) Bill, the Excise (Amendment) Bill, which were passed into law;

(*ii*) the Goondas Bill, which was taken through a Select Committee;

(*iii*) the Aerial Ropeways Bill, which was referred to a Select Committee, on whose recommendation the Bill was subsequently withdrawn; and

(*iv*) the Calcutta Municipal Bill, which was referred to a Select Committee.

There were also two non-official Bills before the Council, the Village Self-Government (Amendment) Bill and the Bengal Muhammadan Marriages and Divorces Registration Bill. Leave for the introduction of the former Bill was asked for and refused, while the mover of the latter Bill (which had been introduced in the previous year) decided after consideration to withdraw it, and it was finally withdrawn in open Council. Six hundred and forty-eight resolutions were balloted for during the year, of which 227 were discussed, 27 were carried, 69 lost, and 131 withdrawn; 2,019 questions were also asked during the year. Leave was given in the latter part of the year to a non-official member to move the amendment of the Council standing orders so as to limit the number of questions and resolutions which may be put by any individual member during one session. The question was referred to a Committee whose recommendations were placed before the Council early in

* The General Summary deals with the calendar year 1922.

1923. Leave was also given to another member to move the amendment of standing orders to reduce the time-limit for speeches in connection with the debate on a motion for the adjournment of the Council to discuss a matter of urgent public importance. The question was similarly referred to a Select Committee. The Council's powers in the matter of finance were exercised as previously in motions for reduction of grants at the time of the budget and in similar motions in regard to supplementary grants. A supplementary demand of Rs. 22,000 for a temporary jail for female political prisoners was refused by the Council by a majority of one. His Excellency the Governor, however, certified the grant to the extent of Rs. 16,600. Part of the demand for the Paper Book Department which had been thrown out *in toto* by the Council was also certified and the remainder of the amount was restored by the Council at the July session after the position had been explained to them fully by Government. The question of the Ministers' salaries was again raised during the year on a motion for a supplementary grant consequent upon the discussion to treat this particular item as a " voted " one. A number of motions were moved for the reduction of these salaries and an animated debate ensued. All the motions, however, were eventually defeated by large majorities. As in the previous year, the Police budget received the greatest attention from non-official members and a demand of Rs. 1,74,11,000 under a detailed head relating to Police was cut by one lakh in a division which disclosed a majority of one. Part of this amount was certified by His Excellency the Governor and the remainder was restored by the Council at a subsequent session on further reasons for the necessity for the grant being furnished by the Government. Among matters of general public interest discussed by the Council during the year, the question of the travelling and residential allowances of non-official members evoked the most voluminous discussion. A number of resolutions were moved urging the revision, in the direction of economy, of the rules governing these allowances, while a few counter-resolutions recommended an increase of expenditure on these charges. The attitude of Government was neutral, and after a heated debate the Council agreed to the suggestion of the Member in charge of the Legislative Department that the matter should be referred to a Committee. The Committee have finished their labours and their recommendations have been subsequently accepted by Government. One motion for adjournment was moved during the year. It related to the flogging of certain political prisoners in the Barisal Jail. The motion was talked out. The Council sustained a great loss during the year by the sad and untimely decease (following shortly on his resignation) of its first President, the Hon'ble Nawab Sir Syed Shams-ul-Huda, K.C.I.E. Prior to his resignation the late President was on leave and the Deputy President (Babu Surendra Nath Ray) carried on his duties in his absence and continued to do so after his death until the arrival of the new President, the Hon'ble

Mr. H. E. A. Cotton, C.I.E., on 6th November. Mr. Cotton took the oath of his office on the 20th November 1922. The design prepared by Mr. John Greaves for the proposed new Chamber for the Council was considered to be too elaborate in view of the straitened condition of provincial finances and he was accordingly requested to design a more modest and less costly building. The modified design has been prepared and is being exhibited in the present Council Chamber in the Town Hall.

3 **Non-co-operation.**—An account was given last year of the stages by which the non-co-operation movement developed into an organised and widespread conspiracy to paralyse and destroy the existing Government and thereby attain a nebulous and impossible *swaraj* and of the extraordinary measures which were adopted to stem the rising tide of anarchy. These measures were the prohibition of public meetings and processions in Calcutta under the Calcutta and Bengal Police Acts; the application of the Seditious Meetings Act to the district of Howrah; and the proclamation as unlawful associations under Part II of the Criminal Law Amendment Act, 1908, of the various corps of volunteers whose main objects were the defiance of constituted authority and interference with the freedom of the law-abiding public. The political situation in the beginning of 1922 was still volcanic. The forces of lawlessness and disorder which had been so wantonly aroused towards the end of the previous year continued to engender in increasing measure among the masses a widespread contempt for authority which manifested itself in the boycott and intimidation of the loyal supporters of Government, active molestation of Government servants, persistent tampering with the police, dissuading of chaukidars from serving in their normal duties and a growing refusal to pay the chaukidari tax as a first chapter in the book of civil disobedience. The entrance of Indian ladies of the educated classes into the political arena and organised attempts on their part, in Calcutta and some parts of the mufassal, to defy authority added to the difficulties of the situation. The most disquieting development, however, in the mufassal was the increasing display of contempt for the police, and a tendency to attack them in the discharge of their duties, which resulted on several occasions in serious collisions, of which those at Salanga Hát in the Sirajganj subdivision, at Tittagarh in the 24-Parganas, at Madarihat in Jalpaiguri district, at Ulipur in the district of Rangpur, and in the Chauddagram area of Tippera district may be mentioned. The policy of firmness adopted by Government, however, their determination to strike at the roots of anarchy and to restore peace, displayed in the vigorous prosecution of offenders and in the quartering of additional police at the expense of the inhabitants in the insurgent areas of Tippera, Midnapore and Chittagong districts, produced a marked improvement in the state of affairs which was reflected in the failure of Mr. Gandhi's arrest in March to arouse any excitement in Bengal. This improvement was maintained throughout the rest of

the year and the non-co-operation movement in its most violent and seditious aspects, rapidly declined. The Provincial Congress Committee declared for the universal inception of a peaceful constructive programme, but the various non-co-operation and Khilafat organisations scattered throughout the province were hampered by lack of money and volunteers, by the loss of their leaders and by the growing apathy of the public, and other activities were sporadic and meagre. Spasmodic attempts at picketing occurred, and occasional eddies of disorder continued to be thrown up by the under-current of unrest left behind by the general lawlessness which prevailed during the cold weather, while the British attitude over the Turkish victories in Asia Minor caused a good deal of excitement among all classes of Muhammadans. But the political situation in general showed steady improvement and as the local officers in combating the illegal activities of non-co-operators found it increasingly unnecessary to supplement the provisions of the ordinary law, Government were enabled to withdraw with effect from the 29th November, all the notifications under which volunteer corps and other associations connected with the non-co-operation and Khilafat movements had been declared to be unlawful. Early in the year the Legislative Council had passed a resolution recommending the withdrawal of these notifications, but Government were unable to accept this advice at the time.

The publication late in October of the report of the Civil Disobedience Enquiry Committee raised clear issues as to future policy on the basis of which parties were formed in the extremist camp. Mr. C. R. Das came forward with a programme which met with considerable support, but at the same time provoked much discussion and strong opposition in some quarters. It was based on two main planks—closer association with the labour movement and the contesting of the next elections for the reformed Councils, and entry into those legislative bodies with a view to obstruction from within instead of the policy of boycott hitherto followed. The year closed with the attention of non-co-operation and Khilafat circles focussed on the meetings of the All-India Congress at Gaya, at which Mr. Das as President elaborated his programme and was defeated on the question of Council entry.

4 **The economic position.**—The slow process of recovery from post-war economic stress of which there were unmistakable indications last year, continued unchecked in 1922. The restoration of the equilibrium of wages and prices was almost completely effected, signs were not wanting of the gradual rehabilitation of trade and industry, and real progress was registered in the direction of increased economic welfare. The agricultural outlook for the year was favourable. The main food-supply of any year is provided by the previous season's harvest, and it is therefore satisfactory to note that the outturn of winter rice for the year 1922-23 is estimated to be almost as great as the bumper crop reaped in the end of 1921. In consequence of this

abundant harvest the price of rice was somewhat lower in the early part of 1922 than it had been in the previous year and although a tendency to rise manifested itself after the removal, in April, of all restrictions on export, a steadying effect was exercised by the influx of new autumn rice into the market. The high wages of industrial labourers remained unaffected by the lowered cost of food-stuffs. The Government of Bengal followed up the revision in the previous year of the pay of its menial establishment by a similiar readjustment of the salaries of ministerial officers, to whom substantial increments were granted from January 1st. After six lean years the jute cultivators of eastern Bengal came into their own again. Curtailment of the area cultivated, resulting in a reduced crop, kept the prices of raw fibre at a record level in spite of a restricted demand. Even "rejections" were selling at from Rs. 9 to Rs. 12 per maund, while better quality fibre was proportionately more expensive. Unfortunately, serious distress was caused by natural calamities in two areas—in the Burdwan and in the Rajshahi divisions. The heavy rainfall towards the end of June led to floods in parts of Bankura and Midnapore districts. Relief measures were promptly undertaken by the local authorities. Later on in the year, disastrous floods were caused in northern Bengal by three days' continuous rain in the end of September. The principal areas affected were the Naugaon subdivision and parts of the Nator and Sadar subdivisions of the Rajshahi district, involving 1,200 square miles, an area in the west of the district of Bogra of nearly 400 square miles, and smaller areas in the Balurghat subdivision of Dinajpur and in the district of Pabna. The flood was of greater dimensions than that which occurred in the year 1918 and the railway line was breached in several places. Great damage was done to crops, houses and cattle. For instance, in 350 square miles of the inundated area of Rajshahi district, about three-quarters or more of the winter rice crops was destroyed and in the *ganja mahals* 90 per cent. of the *ganja* crop; but the area passed over by the floods was affected in varying degrees. Some 14,000 head of cattle perished and many thousands of huts were demolished. Fortunately the death-roll was small, 33 lives being lost in Rajshahi district and 22 in that of Bogra. Prompt and gratuitous relief to meet immediate distress was at once given by the district officers and all necessary arrangements for relief work were quickly made. Many non-official agencies, in particular the Bengal Relief Committee, rendered valuable assistance. Agricultural loans of seed and money were widely distributed, special attention was given to medical relief and the prevention of epidemics, and a divisional fund was opened to enable private charity to join hands with Government in necessary measures for the reparation of losses and the general rehabilitation of the destitute.

5. **The financial position.**—The financial history of Bengal in 1922 is mainly a record of endeavour on the part of Government to escape from the

state of acute financial embarrassment in which the province was placed by the Meston settlement, by recourse to expedients for the augmentation of revenue on the one hand, and on the other by the exercise of drastic economics in expenditure. Mention has already been made of the passing, early in 1922, of three fiscal measures to raise court-fees, to increase stamp duties, and to levy a tax on certain forms of amusements, including betting on horse-racing. The year 1922-23 started with an opening balance of Rs. 67,53,000 and an estimated total revenue of Rs. 10,43,16,000, including Rs. 1,40,00,000 which, it was calculated, the new fiscal Acts would bring in. At the time of the framing of the estimate the slump in trade was considered to be at its worst and it was thought that, with a good monsoon and improvement in the international situation, trade would revive. But the monsoon passed without materially improving trade, the depression continued and was reflected in a decline in revenue, noticeably under the head " Stamps " and to a lesser extent under the head " Industries." The falling off under the latter head, however, was mainly due to a fall in the market price of quinine and to the decision of the Punjab Government to discontinue to purchase their stock of quinine from the Bengal cinchona factories. The decline in revenue would have been larger but for the decision of the Government of India to allow all unclaimed deposits in respect of provincial heads of revenue to be credited to the accounts of the Provincial Government and to a growth in excise revenue owing to the extension of the fixed-fee system to all the districts of the province. In consequence, the revised estimates under the revenue heads were fixed at Rs. 9,66,95,000, showing a fall of Rs. 76,21,000 as compared with the sanctioned estimate for the year. The total estimated expenditure, on the other hand, including the supplementary estimate, amounted to Rs. 10,68,74,000, but in view of the disappointing character of the receipts during the first six months of the year it was decided in September to close down schemes in all directions, some of them new schemes and some of them old schemes actually in operation, and the revised estimate was fixed at Rs. 9,82,50,000, which, in spite of the economics adopted and the saving thus shown, entailed an excess of Rs. 15,55,000 in the expenditure of the year over revenue and the reduction of the closing balance to Rs. 50,84,000.

6. **Retrenchment Committee.**—The imperative necessity of new taxation had been accepted by the Legislative Council in the beginning of 1922, but the possibility of effecting systematic retrenchment in further expenditure naturally loomed large in the 1922-23 budget debates. In the course of these discussions dissatisfaction was expressed with the results of the enquiries of the Standing Committees, before whom the various departmental budgets had been placed for scrutiny, and several members urged the necessity for a retrenchment enquiry of a comprehensive nature. In June, the Governor in Council, with the concurrence of the Ministers, decided that the time had

come when this request should be acceded to. It was recognised that the resources of Government, even when augmented by the taxation to which the Council had agreed, would barely suffice for the needs of the administration on the standards hitherto accepted, and that unless considerable retrenchments could be effected in the existing scale of expenditure, it would be impossible without further taxation, to finance any considerable new schemes of development. In order, therefore, that Government, the Legislative Council and the public should be placed in possession of a reasoned statement of the essential financial requirements of the administration, His Excellency the Governor in Council appointed a Committee of five representative members under the presidency of Sir Rajendra Nath Mukherji, K.C.I.E., K.C.V.O., to examine all departments of administration and to make recommendations for effecting all possible reductions in the expenditure of the local Government. The Committee finished their labours in the end of December and submitted their report for the consideration of Government on 7th January 1923.

7. **Exports and imports.**—The foreign trade of Calcutta in the early part of 1922 showed no signs of recovery from the depression into which it had sunk in 1921; but a good monsoon, the collapse of the boycott movement, a steadier rate of exchange and a gradual revival in the purchasing power of her customers, combined to help in a slow recovery, and though the total results are not very encouraging, the year closed with much brighter prospects and more hopeful auguries for the future than did its predecessor. Exports began to revive in August and at the close of 1923 amounted to Rs. 110·13 coes, a considerable advance on the Rs. 82·29 crores in 1821, but still Rs. 11 crores below the figures for 1920. The total value of imports dropped from Rs. 108·63 crores to Rs. 85·04 crores, but this was due to a large fall in the prices at which most goods were imported rather than to any decline in their quantity, as will be explained later. The reduced value of the import trade resulted in the establishment of a favourable trade balance of Rs. 25·09 crores, in marked contrast to the adverse balance of Rs. 26·34 crores recorded for 1921. The total coasting trade advanced from Rs. 36·74 crores to Rs. 45·22 crores; this high figure was due, as in the previous year, to abnormal shipments of rice to Karachi and Madras for re-export thence, the prohibition on the shipments from Calcutta to foreign ports not having been removed till the 28th September 1922. Imports of treasure in the foreign trade improved, gold from Rs. 15 lakhs to Rs. 63 lakhs and silver from Rs. 34 lakhs to Rs. 2 crores. No gold was exported in contrast to the Rs. 99 lakhs sent away in 1921 and despatches of silver dropped from Rs. 14 lakhs to only Rs. 60,000. The net result was an excess of imports of treasure over exports amounting to over Rs. 2½ crores.

As has been mentioned above, the decline in value of the import trade has been mainly due to the heavy fall in prices. Imports of sugar decreased

from 351,644 tons to 254,315 tons, but their value dropped from Rs. 11·43 crores to Rs. 5·98 crores. Iron and steel actually increased in quantity from 247,301 tons to 270,724 tons, but the value owing to price cutting in keen competition with the continent, decreased from Rs. 10·71 crores to Rs. 7·22 crores. Mineral oil also increased in quantity from 38 million to 44 million gallons, but the value only reached Rs. 2·92 crores against Rs. 3·14 crores in 1921. The heavy imports in 1921 of machinery and railway plant and rolling stock were not repeated, the value of the former contracting from Rs. 15 crores to Rs. 9 crores and the latter from Rs. 10 crores to Rs. 6 crores and there were decreases of a crore each under hardware and electrical instruments. Cotton manufactures, including twist and yarn, increased from Rs. 29 crores to Rs. 30 crores, but the increase in quantity was much greater, for imports of piece goods expanded from 693 million to 818 million yards, although the value increased only from Rs. 25·67 crores to Rs. 27·16 crores. Other items which showed increases in quantity where cheaper prices reduced the advance in value were tobacco, wheat from Australia, brass, copper, and rubber (chiefly tyres and tubes for motor cars). The number of motor cars increased from 1,175 to 1,371, but the value dropped from Rs. 74 lakhs to Rs. 46 lakhs. Germany succeeded, through the lowness of the prices accepted, in improving her scales of iron and steel, aniline dyes, wood pulp, paper, hardware, glassware, instruments, chemicals, toys, paints and colours and drugs, medicines, and though her business in salt declined considerably it is probable that this may have been because better freight offered. All principal articles shared in the recovery in the export trade except coal, shipment of which was prohibited throughout the year. Tea, owing to higher prices, advanced in value by Rs. 3 crores, although the quantity exported contracted from 246 million to 201 million pounds. Raw jute, helped by fears of a jute famine recorded the largest increase, nearly Rs. 9 crores, while jute manufactures and seeds (chiefly linseed) followed with advances of Rs. 5 crores and Rs. 3 crores respectively. Other items showing very noticeable increases were lac, raw cotton, rice and myrabolans. Shipments of hides improved slightly but those of skins fell off. Germany, in spite of the depreciation in the sterling value of the mark, secured most of the raw jute and raw hides and increased her purchases of the former from 134,688 to 151,349 tons and of the latter from 8,993 to 10,012 tons. The low prices ruling in Calcutta led to large re-exports of sugar, 16,095 tons being sent to more profitable markets, chiefly to the Straits Settlements and the United Kingdom, against 665 tons in 1921.

8. **Exchange.**—The year opened with the rate of 1s 3d to a rupee at which figure, with fractional changes, exchange was steadily maintained till November when it reached 1s 4d. It weakened again in the first half of December and went back to 1s 3d, but thereafter advanced once more and stood at 1s 4d at the close of the month.

9. **Jails.**—The incarceration of a large number of middle class people whom excessive and misguided enthusiasm for the non-co-operation movement had betrayed into the commission of criminal offences, raised for the jail authorities the question of the treatment to be accorded to such prisoners. At first temporary rules were issued creating a special class for prisoners possessing a better education and higher social status and with a higher standard of living than the ordinary convict. Subsequently, these were superseded by revised rules prescribing differential treatment for a more restricted class of prisoners certified by Government to be special class prisoners on account both of their status and education and also of their character and the character of their offence—two considerations which were not taken account of in the previous rules. For example, persons convicted of violence to person or property are excluded from this category. In the course of the year some progress has been made in the introduction of the reform suggested by the Indian Jails Committee, but financial considerations rendered it impossible to give effect to many important recommendations. The rules relating to the appointment and duties of visitors to jails have been remodelled so as to arrange for weekly visits by individual visitors as well as a quarterly inspection by the entire board of visitors. Provision has also been made for the appointment of female visitors for all jails and of elected members of the Bengal Legislative Council as visitors to jails situated within their constituency or in the district in which they reside.

The contact of special class prisoners who regarded their imprisonment as a culminating act of injustice on the part of Government with ordinary convicts and the differential treatment accorded to the former were responsible in many cases for the birth of a contumacious spirit of indiscipline and insubordination among the ordinary convicts, which developed on two salient occasions into open mutiny. On the 26th April a serious *émeute* occurred in the Presidency Jail. A Muhammadan convict was missing from his file at roll call in the early morning. This was a serious breach of jail discipline for which he was taken to task by the head warder who also assaulted him. The offence however was no justification for the assault which is strictly forbidden by the jail regulations; and in the belief that the assault had been committed while the prisoner was at his prayers, the general body of prisoners refused to take their mid-day meal. The jail staff attempted to reason with them but the convicts became violent, and using parts of machinery, brickbats and iron utensils as missiles attacked the warders, who were compelled to open fire, forced them to retire to the main gate, took possession of the jail and set fire to the worksheds and the oil godown. It was not until the arrival of a strong reinforcement of troops that order was restored. Altogether nine convicts were killed and forty-nine wounded while of the jail staff one died of injuries received, five warders were seriously

hurt and thirty-one others received minor injuries. Fourteen convicts escaped over the wall, while the jail buildings were considerably damaged and a large quantity of raw materials and manufactured articles were destroyed by fire. An outbreak of a less serious nature took place in the same jail on the 1st October. It arose from the circulation in the jail of a false rumour that one of the convicts was being tortured in the jail hospital. Prompt assistance was rendered by the police and the disturbance was quelled in a short time. Desultory firing on the part of the warders, two of whom were slightly hurt, resulted in five of the mutineers receiving minor injuries. An unusual amount of public interest was taken in jails during the year, mainly on account of the presence of the non-co-operator prisoners confined in them. Many unwarranted accounts were published of the harsh treatment to which, it was inaccurately alleged, these prisoners were subjected and they in their turn took full advantage of the sympathy they excited and attempted to upset discipline and to make the administration of the jails impossible. Public criticism reached its height in a lengthy and exacerbated discussion in the Legislative Council in August on the whippings which had to be inflicted on certain prisoners in the Barisal Jail for grave and persistent breaches of discipline.

10. **The Industrial position.**—The severe depression from which almost all the industrial activities of the province suffered throughout 1921 continued up to the middle of 1922, when industrial prospects began to brighten and a tendency towards improvement set in, which by the end of the year had become very marked. The cotton industry, which had received a considerable impetus from the political boycott of Manchester goods in 1921, continued to prosper, but in a milder degree, as the demand for *swadeshi* cloth weakened with the decline of the non-co-operation movement. A careful manipulation of total production kept jute prices fairly normal and the year closed with good stocks of raw material and fairly low stocks of manufactured goods in hand and generally brighter prospects which will, however, depend largely for their realisation on next year's crop. Similar systematic limitation of production secured for tea manufacturers another good year. The iron and steel industries experienced many difficulties, some of which were due to the general economic depression and others were purely local. To these latter belongs the serious drawback that no real industrial community has yet established itself in these industries, that the workmen are largely cultivators who spend a portion of each year on their land and thus make continuity of work almost impossible. The year was on the whole a successful one for the coal industry in spite of sporadic labour troubles and constant shortage of wagons. On the removal of this latter difficulty and the improvement of the transport system the future of the coal-fields depends, and with it the future of all the other major industries of Bengal. Of the other minor industries of

the province few escaped the prevailing depression and many were insistent in their demands for artificial stimulation. Many of the companies floated during the industrial boom have gone to the wall, while only 137 companies were registered between the 1st April and the 31st December—an average of 15 companies a month against 25 of the previous year. Capital, even for sound industrial schemes, can hardly be obtained in Bengal now. The change in the attitude of the educated classes towards industry continued to be manifested during the year in a growing demand for technical and industrial training, which was strengthened by increasing unemployment.

11. **Labour.**—Ninety-one strikes, involving about 160,000 work-people, were recorded during the year, as compared with one hundred and fifty strikes, involving about 265,000 work-people, in 1921. The aggregate economic loss in working days was about 1,475,700, exclusive of the loss involved in three strikes for which figures were not available at the time this report was written. About 60 per cent. of the strikes were due to disputes regarding emoluments, leave or hours of work, and more than 66 per cent. resulted in the unconditional return of the men to work. The strikes were spread over all branches of industry; the most important were those on the East Indian Railway, in the jute mills, in eight of which strikes of some duration occurred, among the Calcutta lascars and stevedores' labourers, and in a paper mill. Outside influences, partly political, are believed to have prolonged the strike on the East Indian Railway; but so far as the rank and file of the railwaymen were concerned, the strike seemed based on a genuine belief that they had grievances. All but four of these strikes resulted in the complete failure of the strikers. Of the strikes organised by the weavers in eight jute mills in an attempt to level up the prevailing rates of wages, almost all ended in the unconditional surrender of the strikers. One, involving woman workers, resulted in the concession by the management of a part of the employees' demands. Towards the close of the year a strike broke out among the drivers of the Calcutta Tramways who disapproved of the action of the Tramways Company in regard to a number of dismissals, and caused a great deal of public inconvenience during the Christmas holidays. It was still continuing at the end of the year, though negotiations for a settlement were in progress. In October and November there was considerable dislocation of work in the various industrial establishments in the neighbourhood of Asansol, Hirapur and Julti, which was occasioned by the circulation of an absurd rumour that some of the Punjabi labourers intended to kidnap children for sacrifice at the blowing-in of the new blast furnaces at Hirapur. The scare gradually died down and work became normal about the middle of November.

The increasing solidarity of labour was reflected in a not inconsiderable growth of labour associations during the year. Many associations or unions

that were in a moribund condition at the beginning of 1922 revived and displayed increased activity in the course of the year, while several of the more stable organisations devoted themselves to strengthening their position by intensive development and consolidation. The Indian Seamens Union continued its keen interest in the seamens' recruitment question and passed several resolutions urging early legislation on the subject, and also demanding for Indian seamen a share of German reparations money. The Calcutta Tramways Employees' Union was registered under Act XXI of 1860, and held regular meetings for the ventilation of the men's grievances. The organisers of the Central Uriya Labour Union of Calcutta were assiduous in propaganda work among the Burrabazar coolies, who were frequently reminded of their fall from the high estate formerly held by them and their countrymen in Orissa and were urged to escape from the serfdom of manual labour in Calcutta and resume the nobler and healthier life of agriculture in their native villages. The Press Employees' Association of Calcutta continued its agitation for the abolition of the piece-work system in Government presses, and the Khansamas' Union was active in organising a volunteer corps for the service of the union. The formation of ten new labour associations was reported from different parts of Bengal—six from Calcutta, and one from Howrah, Bogra, Rangpur and Dinajpur, respectively. A noteworthy amalgamation was the Bengal Provincial Trade Union Federation of Calcutta. The Federation, as well as several of the unions individually, submitted their views to Government on current proposals affecting their interests.

12. **Work of the Agricultural Department.**—In common with all other departments of Government, the Agricultural Department was limited in its activities by financial considerations. A reduced budget which was still further curtailed during the year involved the stoppage of all new projects, and expenditure was confined to the careful consolidation and completion of work already in progress. Six of the new district farms have been practically completed and much useful work has already been carried out in each of them, while a seventh at Suri was opened by His Excellency the Governor immediately after the close of the year. The establishment of district farms has been a central feature of the policy of the department on the grounds that not only are the fruits of the departmental research brought home to a wider agricultural public by the multiplication of such centres, but in them district agricultural officers have opportunities of acquiring the thorough knowledge of agricultural practice which many of them at present unfortunately lack. The new system, of which mention was made last year, of utilising private agencies to assist the central experimental stations and the district farms in coping with the ever-increasing demand for the new and improved varieties of seed produced by the department has now been brought into extensive operation under the supervision of the local agricultural officers,

and has met with a fair measure of success. The scheme offers great scope for future development, which depends largely on convincing the cultivator that it is to his interest to use only seed of the best quality. This object has already been achieved with jute in Eastern Bengal and the demand for departmental seed has been greater than ever, even at prices nearly three times that of bazar seed. Experience has taught the cultivator the profitable lesson that the new jute varieties yield not only up to 25 per cent. more than local races, but that they are also more paying to grow in a bad season like that of 1922. An unexpected feature of the non-chloratic race of *C. capsularis* is that they can be sown a month later than ordinary jute and still yield a good crop. The area, annually covered by departmental jute seed is not far short of 200,000 acres, while the net increased revenue to the cultivator approximates Rs. 50 lakhs a year. Similarly satisfactory results have attended investigation directed to the improvement of the rice crop and about 100,000 acres are now growing pure heavy-yielding varieties of highland *aus* and transplanted *aman* paddy. New varieties to suit special conditions such as are found for instance in Western Bengal, where an early cessation of the monsoon is common are being evolved and show great promise. Research is also in progress on deep-water paddy which, from its nature, presents peculiar difficulties. Experimental work with sugar-cane continued, and there is now a real necessity for the establishment of seed farms to meet demands for the increasingly popular tanna cane. Cotton investigations have ended in comparative failure. It is unlikely that the cultivator will gratify a sentimental preference and lose a certain profit by making room in his rotation for a crop which thrives naturally in a much drier environment than that of Bengal. Cattle-breeding experiments at Rangpur have yielded most promising results, and the establishment at Pusa of the principle that the milking strain is prepotent in the sire has simplified enormously the problems which are so acute in Bengal of improving both cattle and the milk-supply. The imminent closing of the Sabour Agricultural College in Bihar, where agricultural students from this province have hitherto been trained, has brought into prominence the question of providing facilities for advanced agricultural education within the limits of Bengal. A scheme has been framed for the establishment of an Agricultural Institute at Dacca at which students who have completed a university course in agricultural science would receive a comprehensive training in practical agriculture on modern lines.

Signal service was rendered by the Agricultural Department in carrying out the relief measures necessitated by the widespread destruction of crops and stored grains in the flooded area in northern Bengal. As in the previous flood of 1918, *rabi* seed was distributed on loan to cultivators whose stocks had been damaged, but the time available in 1922 was very short as the flood took place after the beginning of the *rabi* sowing season and in fact the sowing

season for crops like *mati kalai* and *moong* was already over before departmental seeds were available. It was however, possible to distribute about 2,500 maunds of seed, mostly wheat and pulses, from thirteen centres in about ten days, and 4,000 families were thus enabled to sow a crop who had otherwise been bereft of any hope of harvest.

13. **Co-operative movement.**—Steady progress was made by the co-operative movement during the year in spite of adverse economic conditions and there was an increase both in the number of societies and in their membership. Repayments of loans showed a decided improvement. The Central Banks succeeded in attracting a larger amount of local capital and in consequence an increasing number of them are showing signs of becoming financially independent of the Provincial Co-operative Federation as the Provincial Bank is now called. The latter continued to inspire increasing public confidence, which was manifested during the year in an enormous growth in deposits. A notable feature of the year's work was the attention bestowed on the development of forms of co-operation other than credit. Stores and supply societies increased in number, and although their working in most cases left much to be desired, they achieved one satisfactory result in lowering local market prices. Propaganda work has been directed towards the development of cottage industries. The possibilities of establishing stores for stocking and supplying yarn to weavers on a co-operative basis have been explored and proposals for the formation of industrial unions have been under consideration. Special attention was paid to weavers' societies with a view to the expansion of the hand-loom industry. As a result of the propaganda work of the department, the conch-shell workers of Dacca have combined to form a co-operative society which provides an assured and cheap supply of raw material to its members, who are no longer dependent upon middlemen. Irrigation societies increased in number, and proposals for extending this form of co-operative activity in Bankura, Burdwan, Birbhum and the western part of Midnapore were under consideration. Associations of practical agriculturists were organised during the year on a co-operative basis for the purpose of agricultural propaganda and experiment and the introduction of co-operative methods among cultivators. They are still in an experimental stage.

14. **Public Health.**—During the year the general health of the Presidency as shown by the death-rate was much better than in the preceding year, the total mortality being nearly 15 per cent. below that of 1921. The improvement was most marked in the Burdwan, Presidency and Rajshahi Divisions. In the Chittagong Division, on the other hand, mortality showed a considerable increase. Unfortunately, the lower general death-rate was not accompanied by an improvement in the birth-rate, which continued to remain below

the quinquennial average, thus reflecting the economic condition of the population during the preceding year. The fall in mortality was due to the greatly lessened prevalence of influenza, cholera and febrile diseases generally. With the exception of Calcutta and Darjeeling district, where the disease was responsible for a considerable number of deaths, influenza showed a remarkable reduction. Cholera mortality was also as a whole much below the average of the previous ten years, in spite of the occurrence of epidemics in certain districts, as for example, Mymensingh, Dacca, Tippera, 24-Parganas, Noakhali and Howrah. Small-pox was not widely prevalent, but parts of Jalpaiguri, Mymensingh, Midnapore, Chittagong and Dacca suffered severely, though not to an extent sufficient to raise the provincial death-rate from this cause above that of 1921. Deaths from febrile diseases were generally far below those of the previous year, this being especially the case in many districts of the Burdwan, Presidency and Rajshahi Divisions. Plague mortality continued very low.

15. **Sanitary measures.**—In common with other activities, sanitation suffered considerably as a result of the financial situation. Nevertheless progress continued to be made in certain directions, noticeably in respect of sanitary administration by local self-governing institutions, to which more detailed reference will be made later. The experimental anti-malarial schemes initiated in recent years have been kept under careful observation, and the beneficial results of the flood and flush project at Jangipur have now become apparent. During the year local authorities were assisted by the grant of Rs. 50,000 towards the cost of quinine and cinchona febrifuge. The kala-azar survey has been continued and has brought to light the fact that in certain areas *foci* of intense infection exist, from which the disease undoubtedly is tending to spread in various directions. Numerous *foci* of this kind exist in the neighbourhood of Baraset in the 24-Parganas, Kalna in Burdwan, and in parts of Nadia, Jessore and Mymensingh. Under the guidance of the Public Health Department, local authorities, aided in some cases by voluntary organisations are beginning to take active measures to combat this dangerous disease. The educational campaign in regard to disease prevention was continued during the year, largely under the control of the Publicity Department of Government who employed five lecturers for the purpose, provided with a magic lantern and sets of slides prepared by the Public Health Department. The latter department continued to employ a special officer for the purpose of demonstrating the dangers of impure water, adulterated foods, etc., and for general propaganda work. During the year considerable progress was made in the Dacca sewerage project and the Krishnagar water-supply scheme; and some experiments were made in sinking deep wells in certain municipal areas. Advance has been made in connection with school hygiene, a number of municipalities possessed of health officers having commenced the systematic medical inspection of school children. The work

already accomplished in this direction has brought to light the existence of many unsatisfactory hygiene conditions among school children, and has provided material for ascertaining the physical standards of the child population of the province. The value of preventive measures directed against disease was again demonstrated in the case of the Ganga Sagar *mela*, at which the collaboration of the health departments of Government, the district board, the Calcutta Corporation, the Port Health Officer, assisted by numerous voluntary organisations, proved most effective in checking cholera.

The floods in northern Bengal afforded another practical demonstration of the value of anti-cholera measures and other organised methods of disease prevention. More than half the personnel of the Public Health Department were employed in the flood area for a period of nearly three months, assisting the local authorities and voluntary organisations engaged in relief work. As a result of the joint action taken by all workers against disease, cholera and other epidemics were conspicuous only by their absence.

16. **Medical.**—Land was acquired for the new medical school at Mymensingh and steps have been taken to provide the necessary funds for the construction of buildings. The exigencies of provincial finance, however, have made it necessary to keep in abeyance the proposals for the establishment of medical schools elsewhere. For the same reason the scheme for the establishment of a leper colony in the district of Midnapore had to be revised with a view to starting the colony on a smaller scale and developing it later as funds are forthcoming. The curtailed scheme awaits the sanction of Government, but in the meantime land for the colony has been acquired with the money collected by the Mission to Lepers in India. Committees have been appointed by Government to consider what practical steps can be taken for the restoration and development of the Ayurvedic and the Tibbi or Unani system of treatment, but have not yet completed their enquiry. A committee was also appointed by Government during the year to consider the question of the training and employment of Indian nurses in Government hospitals. All district boards have been addressed with a view to their taking steps to establish a charitable dispensary in every thana where no such institution exists at present, as well as new dispensaries in villages in need of medical relief. Government have expressed their willingness to make grants-in-aid towards the cost of maintenance of each new dispensary. For this purpose Rs. 1½ lakhs was allotted in the supplementary estimates, and although this provision was subsequently cut down to Rs. 15,000, the Medical Department regard the scheme as most important and hope to proceed with it as soon as the financial position improves. The scheme has been received with considerable favour by district boards. The system of septennial examination of Civil Assistant Surgeons, hitherto in force, has been abolished and has been replaced by a system of post-graduate training. The proposal to introduce a

similar course of post-graduate study for Sub-Assistant Surgeons in Bengal has been kept in abeyance on account of financial considerations.

17. **District boards.**—An addition has been made to the number of district boards by the replacement of the Darjeeling Road Cess Committee by a properly constituted district board under an official chairman. All the other district boards now elect their own chairman. The administration of these bodies has been on the whole satisfactory. With the passing of the official chairman and the consequent growth of a new sense of power has come increased vitality and there is keen competition for membership. The most noticeable feature of their recent work is a growing interest in public health and the adoption of a progressive policy in public health administration. Every district board now possesses a full-time health officer charged with the supervision of the public health activities of the board under the direction of the chairman, and although there is some tendency to murmur at the statutory obligation to appoint such an officer and to regard him as an expensive luxury, there are nevertheless unmistakable indications of the gradual evolution of a "public health conscience." The value of preventive measures, such as the disinfection of water supplies where cholera becomes epidemic, is becoming a matter of common knowledge even among the illiterate, and the decision of several boards to provide free vaccination marks a real advance and has been welcomed as a boon by many of the villagers, among whom the old licensed system has long been unpopular. Attention has to some extent been focussed on the investigation of irrigation schemes for the abatement of malaria, but the problem in a country like Bengal is not easy of solution. It seems, however, to be agreed that the remedy lies in removing obstructions to and in promoting the natural flow of water over the deltaic areas of the province, and that the economic welfare of the raiyat is indissolubly bound up with the eradication of malaria. There has been a gradual extension of medical relief, to the paramount importance of which the boards are fully alive, but the exiguity of their funds prevents any rapid development. The improvement of rural water-supply engaged the attention of most boards, but it is hardly practicable for so large a unit of administration as the district board to cope directly with the water-supply of villages. In developing and extending their manifold functions the boards everywhere are seriously hampered by the inadequacy of their revenues. The importance and necessity of increased activity in the matter of road-building, medical relief, public health work, water-supply, and primary education are generally appreciated, but proposals for increased local taxation, by which such increased activity can alone be made possible, meet with equally general disapproval.

18. **Mufassal municipalities.**—If increased vitality has been visible in the working of district boards, no such promising feature is discernible in the general stagnation which continues to characterise the administration of the 116 municipalities which the province possesses. Most of them possess entirely

inadequate revenues; sentiment alone causes many of them to cling to a form of administration which is more elaborate than they require. Most of them are struggling either to obtain a good water-supply or to maintain one for which they had struggled before, and even the larger municipalities find it difficult to provide an efficient piped water-supply, while a water-borne sewage system is hardly known outside Calcutta. In many cases the municipal income is just sufficient to pay the sweepers, mend the roads, and provide oil for a few street lamps, and their administration has become a matter of dull routine, fatal to all enthusiasm and enterprise. The incidence of taxation compared with English standards is extremely low, but in many towns this taxation could probably not be enhanced to any considerable degree without causing hardship. Preoccupied with the struggle, as it were, for existence, few municipalities have found energy or funds to devote to other spheres of municipal administration, the prevention of nuisances, the compilation of vital statistics, which are sadly neglected, medical relief, child welfare, primary education, the control and regulation of private buildings, the improvement of markets, town planning, and in fact most of those activities which give variety, character and life to municipal government.

19. **Calcutta Corporation.**—The new consolidating Bill by which it is proposed to give the Corporation a liberalised constitution more suited to modern conditions is now before the Legislative Council and will probably be passed early next year. Meanwhile, in anticipation of its passing, Government's internal control has been relaxed by the appointment of a non-official chairman. The cost of administration has greatly increased. New needs arise as public opinion and public standards advance, while all work has become more expensive. An increase in the percentage at which the rates are levied seems inevitable. The water-supply extension scheme, which involves an enhanced expenditure of nearly Rs. 20 lakhs a year, is a heavy tax on the municipal revenues, while there is a large programme of other costly major works, street schemes, replacement of the refuse railway by an aerial ropeway, etc., which it is difficult to postpone.

20. **Calcutta Improvement Trust.**—It has become necessary for the Trustees to take careful stock of their position. For nine years they were able to carry on the work of the Trust without borrowing, but in 1920 it became necessary to raise a loan of Rs. 50 lakhs and further loans are now unavoidable. The most expensive section of Central Avenue has been reached and the Board can proceed no further without extensive borrowing. It is nevertheless estimated that after carrying through its present programme the Trust will still have surplus revenue for the service of a loan of one crore of rupees to meet the cost of the improvement of Burra Bazar. Rehousing schemes continue to occupy a prominent place among the Trust's activities. Some of these are intended to provide temporary accommodation at privileged rents for persons who have been dishoused until they are in a position to obtain permanent dwellings. The enactment in the beginning of the year of

an Amendment Act [I (B.C.) of 1922] restored in the case of land compulsorily acquired by the Trust the 15 per cent. solatium which is payable under the ordinary Land Acquisition Act, but which was omitted from the Calcutta Improvement Act of 1911. The question of extending the operations of the Trust to Howrah has been the subject of prolonged discussion. The Trustees have realised the urgent necessity of improving Howrah and of preventing the growth and perpetuation on the west bank of the Hooghly of conditions which can hereafter be remedied only at enormous expense, and have declared themselves willing to extend their activities to Howrah on suitable financial conditions. A Bill is now under preparation for the purpose of creating a separate Improvement Trust for Howrah. It is also proposed to introduce in the Legislative Council, at an early date, another amending Bill which has been drawn up with a view to the removal of a certain legal difficulties and defects in the Calcutta Act (V of 1911) which experience of its operation in recent years has revealed.

21. **Village self-government.**—The development of village self-government received a serious set-back during the cold weather of 1921-22, for the non-co-operators made it a distinctive feature of their policy to attack and discredit the newly establishd village authorities, the union boards, with the result that the Village Self-Government Act was withdrawn from operation in certain areas in several districts where an intensive campaign of misrepresentation had rendered the villagers blind to the benefits derivable from these institutions. In consequence only some 1,100 boards were in operation during the year, but many of these, notably in parts of the Dacca and Burdwan Divisions, continued to do good, steady work in connection with village roads, water-supply, and other aspects of village improvement, in spite of intimidation and opposition. It has been decided that before new boards are formed, it is essential to prepare the ground carefully by means of circle officers who as propaganda officers explain clearly to the villagers the advantages which they may obtain from a statutory right to manage, as a community, their own affairs and the obligations which they must accept in the shape of a village rate. For no union board can be vigorous and healthy, and corporate activity can achieve no material progress, unless the village as a whole accepts the vital principle of self-taxation. Union benches and union courts, which now number 133 and 55 respectively, are said to be popular, and if they are not brought into disrepute by an unwise selection of their members, they seem likely to prove a boon to the villager in enabling him to avoid costly cases or suits in the regular courts. One hundred and ninety union committees, a halfway house between the chaukidari panchayat and the union board, were in existence at the close of the year but, with a few exceptions, their contribution towards the development of village life was meagre.

22. **The Universities.**—Dacca University completed the first year of its existence. Though the condition of provincial finance rendered rapid growth

and expansion of its activities out of the question, it may be regarded as having made a satisfactory beginning. The University of Calcutta carried on its work amidst growing financial embarrassment. Money for the partial relief of its difficulties was voted by the Legislative Council and offered on conditions, but was not accepted by the University. A public subscription was opened in relief of its debt of several lakhs, but little resulted, and by the end of the year the financial future of the University of Calcutta seemed uncertain in the extreme. Towards the close of the year a Bill providing *inter alia* for the improved financial administration of the University was drafted, which it was intended to introduce in the Legislative Council early in 1923.

23. **Secondary education.**—During the year the secondary schools of the province recovered in great measure from the partial depletion they suffered in 1921, although several remain permanently affected. Where permanent loss has resulted, economic stress is largely the cause. It was decided during the year to begin in part the process of reform recommended by the Calcutta University Commission and create a special agency for the control of schools apart from the University upon which the duty now falls. The necessary Bill was drafted in 1922, and was expected to be introduced in Council early in 1923. The Dacca Board of Secondary and Intermediate Education continued during the year to control secondary education in the Dacca University area.

24. **Primary education.**—The outstanding feature of the year's work in primary education was the publication of a second report on the subject by Mr. E. E. Biss of the Educational Service. Detailed schemes for the provision of primary schools on a basis of moderate efficiency and expenditure have been worked out for and sent to every municipality in Bengal, as well as for more than 200 unions in the rural districts. Several municipalities have accepted these schemes in the original or in a slightly modified form, and some have applied to Government for permission to levy a cess to meet their half shares of the expenditure, so that the schools may be freed from fees. In other cases fees are to be levied at first on a certain proportion of the children. A certain number of experimental schemes for rural areas are being worked out by union boards or, in the absence of these bodies, by district boards. Local bodies are displaying a keener appreciation of the necessity of extended and improved primary education and the departmental proposals appear gradually to be finding acceptance in the country. In Calcutta free primary schools are being opened in the premises of certain existing high schools during the early morning hours, and proposals for starting others in shelters in the city parks during the day-time are under the consideration of the Corporation. Arrangements are also being made for building a number of Corporation primary schools.

ADMINISTRATION OF BENGAL, 1921-1922.

CHAPTER I.—PHYSICAL AND POLITICAL GEOGRAPHY.

Physical Features of the Country, Area, Climate, and Chief Staples.

Area and boundaries.

The boundaries of the Presidency of Bengal have undergone no change since the 1st of April 1912, when the provinces of Bengal and of Eastern Bengal and Assam as constituted in 1905 were converted into the three provinces of Bengal, Bihar and Orissa, and Assam. The Reforms Scheme, which came into effect in January 1921, left the boundaries of the province of Bengal unaltered. Approximately it lies between the twenty-second and twenty-seventh parallels of north latitude, and its limits west and east lie irregularly between the eighty-seventh and ninety-third degrees of east longitude. It is bounded on the north by Nepal, Sikkim, and Bhutan, beyond which lies Tibet, on the east by Assam and Lower Burma, on the south by the Bay of Bengal, and on the west by Bihar and Orissa. Including the two Native States of Cooch Behar and Tripura in respect of which the Governor of Bengal now acts as Agent to the Governor-General, and including the French Territory of Chandernagore, the area of the Presidency is 82,277 square miles. The area of the British territory is 76,848 square miles.

Bengal comprises the lower valleys and deltas of the Ganges and the Brahmaputra, and, with the exception of the Himalayan montane and submontane tracts in Darjeeling and Jalpaiguri in the north, the hills in Tripura State and Chittagong and the Chittagong Hill Tracts in the extreme south-east, consists largely of a vast fertile alluvial plain, intersected in its southern portion by an infinity of rivers, creeks, and channels. On the west the Chota Nagpur Plateau is continued by an undulating lateritic tract running through the western portions of Midnapore, Bankura, Burdwan, and Birbhum. This tract was formerly known as the jungle mahals and was largely covered with *sal* forests. It has now, however, been brought largely under cultivation. Another elevated quasi-laterite tract known as the Barind runs from the Rajmahal Hills across Malda, Dinajpore, Rajshahi, and Bogra. A similar tract known as the Madhupur Jungle is found in Dacca and Mymensingh. But the general level of the country is very low. A vast plain extends southward from the submontane tracts of Jalpaiguri in an almost unbroken expanse of monotonous fertility until it meets the forests, creeks, and swamps which, under the name of the Sundarbans, form a belt of jungle between the cultivated area and the Bay of Bengal.

The length of railways completed and open for traffic on 31st March 1922 within the province was 3,228·17 miles, as shown in the following table, excluding 533·34 miles of light railways:—

Railways.	Gauge.	Miles.
Assam-Bengal	Metre	253·14
Mymensingh Bhairab ...	Metre	100·68
Bengal Duars	Metre	158·20
Bengal-Nagpur	Broad	247·42
Calcutta Port Commissioners	Broad	154
Cooch Behar	Metre	33·09
Eastern Bengal	Broad and Metre ...	1,629·70
Iswardi-Serajganj ...	Broad	53·04
East Indian	Broad	598·90
	Total ...	3,228·17

Light Railways.	Miles.
Darjeeling-Himalayan including Siliguri-Kishanganj and Siliguri-Teesta Valley	146·51
Tarakeswar-Magra	33·27
Howrah-Sheakhala	19·75
Howrah-Amta	43·87
Barasat-Basirhat	52·24
Burdwan-Katwa	32·47
Ahmadpur-Katwa	32·26
Bankura-Damodar Rivers	59·95
Kalighat-Falta	26·25
Jessore-Jhenidah	36·75
Khulna-Bagerhat	19·75
Bengal Provincial	33·27
Total ...	533·34

A list of the navigable canals and natural rivers, which are maintained by the Public Works Department, is given below :—

Midnapore Canals—69·75 miles.
Hijli Tidal Canals—49·75 miles.
Calcutta and Eastern Canals—1,184 miles.
Nadia Rivers—489 miles.
Madaripur Bil Route—38 miles.
Orissa Coast Canal—54·50 miles.
Gaighatta and Baxi Khal—7·50 miles.

The Irrigation Department also maintains the 123 miles of channels in the district of the 24-Parganas, known as the Mogra Hat Drainage Scheme, and the 45 miles of channels in the districts of Burdwan and Hooghly, which are used for irrigation purposes only and are known as the Eden Canal. The same Department carries on training works in the Ganges from Rajmahal to Goalundo and in the Buriganga and Dhaleswari rivers in the Dacca district, with the object of keeping the channels in a navigable condition. Several schemes for bringing drainage systems in other areas under control and collecting tolls under the Bengal Canals Act are under consideration.

Rivers.

2. The three great rivers of Bengal are the Ganges, the Brahmaputra, and the Meghna. At one time the Ganges and the Hooghly were one, and the other two coming from the northern and southern valleys of Assam, respectively, met north of Dacca at Bhairab Bazar and entered the Bay of Bengal through the Bakarganj district. Now all three meet and discharge their waters into a main joint estuary between Bakarganj and Noakhali.

The Ganges enters Bengal after rounding the Rajmahal Hills. Its main stream flows nearly due south until the Bhagirathi, in its lower stretches known as the Hooghly, breaks away on the west, while the main stream continues south-east to Goalundo, where it meets the Jamuna, which since the early days of the 19th century has carried the main stream of the Brahmaputra. About 220 miles from its mouth the Ganges spreads out into numerous branches, forming a wide delta. This delta, where it borders on the sea, becomes a labyrinth of creeks and rivers, running through the dense forests of the Sundarbans and exhibiting during the annual inundation the appearance of an immense sea. In the vast paddy growing plains to the north of the forest belt, the villagers build lines of low mud embankments along the edge of every channel which preserve their fields from inundation during the rainy season. The navigable streams which fall into the Ganges intersect the country on all sides and afford abundant facilities for internal communication. In many parts, boats can approach over flooded marshes or by rivulets and water-courses to the door of almost every cottage. The lower region of the Ganges is the richest and most productive portion of Bengal, and abounds in valuable produce.

The Brahmaputra after traversing the length of the Assam Valley and rounding the eastern extremity of the Garo Hills used to flow in a south-easterly direction to meet the Meghna at Bhairab Bazar. It now flows directly south and joins the Ganges at Goalundo.

The Meghna in its upper reaches is known as the Surma and flows between Sylhet and Mymensingh and between Dacca and Tippera until it joins the Ganges between Narayanganj and Chandpur. The Chittagong rivers, including the Fenny which separates Chittagong from Tippera, fall into the east of the Bay of Bengal. The largest of them, the Karnaphuli on which Chittagong is situated, rises in the north-east of the Chittagong Hill Tracts and reaches the Bay after a tortuous westerly and south-westerly course. Its principal tributary is the Halda. The Sangu also follows a very circuitous course, and finally enters the Bay, ten miles south of the Karnaphuli. On the western side of the Gangetic delta the rivers have little or no connection with the main water system of the country. The Damodar, the Rupnarayan, and the Kasai may all be said to join the Hooghly between Calcutta and Saugar Island, but they are isolated rivers which take their rise in the plateau of Chota Nagpur, do not help to form the delta, and are entirely independent in character. The Hooghly is the most westerly, and for commercial purposes the most important channel by which the Ganges enters the Bay of Bengal. It takes its distinctive name near the town of Santipur, a little above the point where the waters of the Bhagirathi join those of the Mathabhanga, at a distance of about 120 miles from the sea. The united stream thus formed is known as the Hooghly during the rest of its course, and represents three western deltaic distributaries of the Ganges, viz.—(1) the Bhagirathi, (2) the Jelinghi, and (3) part of the Mathabhanga which branches off in the Nadia district. Proceeding south from Santipur, with a twist to the east, the Hooghly river divides Nadia from the Hooghly district until it touches the district of the 24-Parganas. It then flows almost due south to Calcutta, next turns to the south-west, and finally to the south before entering the Bay.

The Teesta and the Mahananda have their sources in the Himalayas and pass through the Darjeeling district as typical mountain streams. The former flows through the Jalpaiguri district and carries a considerable volume of water before it joins the Jamuna near Fulchari. The latter after meandering through the sands of the Terai flows west through Purnea and Malda and falls into the Ganges as a considerable affluent near Godagari.

Mountains.

3. The mountains and hills belong to that small part of the Himalayan chain, which lies within, and borders on, the jurisdiction of the Governor of Bengal. They vary greatly in height, from Darjeeling 7,163 feet above sea-level, on the south, to Kinchinjunga in Sikkim, 28,146 feet high, on the north-west.

The Sinchula range in the Jalpaiguri district forms the boundary between British territory and Bhutan. Its average elevation is from 4,000 to a little over 6,000 feet, the highest peak being 6,222 feet above sea-level.

The principal hill ranges in the Chittagong district are—(1) the Sitakund, (2) the Goliasi, (3) the Satkania, (4) the Maskhal, and (5) the Teknaf. Of these the most interesting is the first named, which contains the sacred peak of Chandranath or Sitakund, 1,155 feet in height, the highest hill in the district.

Tripura State and the Chittagong Hill Tracts are mountainous regions to the east of Bengal. The highest peak in Tripura State is 3,200 feet above sea-level.

Dense forests cover the whole of the hilly tracts of the State which give shelter to numbers of wild elephants and other big game including bison, rhinoceros, tiger and leopard, while deer of several kinds are common. The highest hill in the Chittagong Hill Tracts are Keokrodong (4,034 feet) and Pyramid Hill (3,017 feet). The great majority of the inhabitants are either Chakmas or Maghs, both of which races profess the Buddhist religion. Valuable forest trees are found throughout almost the entire area of the Chittagong Hill Tracts.

Lakes and Islands.

4. In the extreme south of the Presidency, an interlacing network of estuaries, rivers, and water-courses encloses a vast number of islands of various shapes and sizes, some of which are covered with low tree jungle and are practically submerged at every tide, while others are capable of continuous

cultivation. The largest islands are Saugar at the mouth of the Hooghly estuary, Sandip, Hatiya, and Dakhin-Shabazpur at the mouth of the Meghna, and Kutubdia off the Chittagong coast. There is little in the natural features of Sandip and the northern portion of Hatiya to distinguish them from any inland portion of the Noakhali district, while Dakhin-Shabazpur has practically become a part of the mainland of Bakarganj.

The only important lake in the Presidency is the Salt Water lake which lies in the district of the 24-Parganas, some five miles east of Calcutta, and covers an area of some 30 square miles. There are, however, innumerable *bhils* or *jhils* or shallow sheets of water which expand or contract according to the season. Among these may be mentioned the Chalan *bil* in Rajshahi

Soils.

5. The Presidency of Bengal is occupied almost entirely by the Ganges and the Brahmaputra alluvia which comprise soils of two very distinct types, commonly designated—(*a*) old alluvium, and (*b*) newer alluvium. The old alluvium consists of a more or less coarse red laterite soil overlying a stiffer red clay. Commencing in the Rajmahal district of Bihar it follows a course through the districts of Malda, Dinajpur, and Bogra, and is found also in the Jalpaiguri district and in parts of the Rangpur district. On either side of and close to the Brahmaputra this type is not found on the surface, being covered by coatings of more recent deposits from flood water. It crops up, however, on the eastern bank of the Brahmaputra in the extensive tract, known as the Madhupur Jungle in the Dacca and Mymensingh districts. Tracts of this type of soil also occur in the Chittagong and Tippera districts, while the whole of the Burdwan Division consists of this old alluvium. The soils of the rest of the Presidency consist of types belonging to the newer alluvia. It must not be supposed that the soils belonging to either of these broad types are uniform all over; they vary somewhat from district to district and even within the limits of the same district.

Broadly speaking, the old alluvial soils are reddish laterite formations, some stiffer and less sandy than others. Nodules of varying sizes of hæmatite occur along with varying grades of sand and clay, the whole forming a coherent mass when moist, but passing into a stiff and caked condition on drying. Owing to the presence of hydrated oxides of iron, these soils are capable of absorbing large amounts of water, thereby becoming almost viscous during the rains. At the same time their capacity for retaining water is not large, being far below the figures reported for stiff soils in Europe. The surface layers very readily part with their water when rain ceases; the surface cracks badly and becomes more or less caked during the dry season.

The peculiar physical condition of these soils, accentuated generally by a deficiency of organic matter renders it in many cases almost impossible to obtain a really fine surface tilth for sowing operations. Accordingly these old alluvial soils are not cropped to any very great extent during the *rabi* season, when very little rain falls. Chemically these soils are characterised generally by a great deficiency of lime and phosphoric acid; the amount of organic matter and nitrogen present is also low. Bacteriological conditions do not, therefore favour the growth of more than a limited number of crops. Of these, the most important is low-land paddy, the physiology of whose nutrition is different from that of most field crops.

The newer alluvium comprises soils of widely different kinds, the proportion of sand-silt and clay varying considerably with the rivers which deposit them and with the point of deposition. The rivers inundate the land from April to October, and gradually raise the level of the tract by their deposits of silt. In this way the Gangetic delta has already been raised above general flood level in many parts, and in other parts the deposition of silt is still going on. Higher up a river's course the deposit consists chiefly of the coarse particles held in suspension by the water, the finer particles being naturally carried further down and deposited as the current velocity diminishes. Through a variety of natural causes, however, the deposits thus laid down may and do vary considerably, not only from year to year, but within comparatively short distances in the same year. It is sometimes hard to draw a clear line of separation between the old alluvium

and the new alluvium as flood water often leaves a coating more or less thick upon the surface of the former, while the great, ever-shifting rivers often carry away masses of the old deposits substituting new ones in their place. But on the whole the newer alluvium is the area of deposition, while the older alluvium is the area of denundation. The soils of the newer alluvium are very different physically from those belonging to the older alluvium, comprising types made up almost wholly of sand and ranging through fine loamy soils of great agricultural value to stiff clays. Very often a fine sandy loam overlies a subsoil of almost pure sand. These soils are very often deficient in organic matter and nitrogen. Many of the coarser deposits are also deficient in lime and phospheric acid. Owing to their superior physical condition and greater amenability to cultivation, these soils are regularly cultivated and cropped during the *rabi* season.

The following table gives some idea of the crops grown on these two broad types of soil:—

New alluvia.	Old alluvia.
Paddy and jute.	Paddy.
Sugarcane and pulses.	Jute (to a small extent).
Oilseeds, *e.g.*, linseed, mustard, *nigar* seed, and til.	Sugarcane (largely).
Cereals, *e.g.*, wheat, barley, and oats.	Maize, jowar, and other millets, pulses, and oilseeds.
Tobacco.	Wheat and barley (to a small extent).

CLIMATE.

Temperature.

6. During the greater part of the year, owing to its peculiar geographical position, Bengal is not only exposed to moist sea winds from the Bay, but is also practically beyond the influence of the hot dry westerly winds which blow down the Gangetic plain in the hot season. The climate of Bengal is accordingly damp and relaxing, the reverse of that of North-Western India.

The annual mean temperature varies between 80° at Midnapore, Bankura, and Burdwan to 75° at Jalpaiguri and Cooch Behar, and 73° at Kalchini. January is the coolest month with a mean temperature of 65° and a mean maximum temperature of 77°. In the maritime tract the thermometer never sinks below 39°, while in the submontane parts the lowest reading yet recorded is 34°. The average afternoon temperature of the hottest months, April and May, is 90° and upwards in all parts of the province, except along the foot of the hills and in the extreme south-east as represented by Noakhali and Chittagong. In the central and western districts, which occasionally come under the influence of the hot winds blowing down the Gangetic plain, the afternoon temperature averages about 100° in April and 99° in May. The highest temperatures yet recorded are 117° at Midnapore and Bankura, and 115° at Burdwan, Raniganj, and Berhampore. The establishment of the monsoon in June produces a moderate fall in the day temperature, but not till the end of October does the afternoon temperature range below 86°. The nights are on the whole hottest in July, but the temperature varies very little from that month to October after which it begins to fall rapidly. The mean daily range of temperature increases with the distance from the sea; it is twice as great in the dry season as in the rainy period from July to September. In the hill tract, as represented by Darjeeling, the mean temperature of the year is only 53° which is 2° lower than that of Simla. The highest mean temperature is 62½° in July and the lowest 41° in January. The highest yet recorded is 80° and the lowest 20°.

Humidity.

7. The high humidity of the atmosphere in Bengal, more especially in the eastern and southern districts, has become proverbial. If the term be used in reference to the quantity of vapour in the air as estimated by its elastic force or pressure, the popular belief is justified by observation, but if it be used in the more common-sense of relative humidity, that is, of the percentage of vapour present in the air in proportion to the amount which could saturate it at its actual temperature, the average annual humidity

of Bengal is lower than that of England. The following comparative tables give the mean vapour pressure and relative humidity of London and of the two Bengal stations of Calcutta and Saugar Island for each month of the year and the mean of the whole year :—

Mean elastic force of vapour measured in thousands of an inch.

—	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total year.
London ...	·245	·264	·280	·315	·340	·490	·534	·530	·468	·389	·310	·281	·376
Calcutta ...	·442	·517	·694	·850	·931	·974	·973	·970	·962	·859	·614	·434	·768
Saugar Island ...	·525	·628	·799	·919	·990	1·015	·995	·990	·979	·894	·683	·513	·827

Mean relative humidity (Saturation = 100).

London ...	97	94	89	84	82	82	84	85	91	94	96	97	89
Calcutta ...	85	82	80	79	79	85	88	89	87	85	82	81	83
Saugar Island ...	90	86	83	81	81	84	87	89	87	85	85	87	85

The preceding tables show that the quantity of vapour in the air of Calcutta is more than twice as great as it is in that of London, whereas the relative humidity of the former is only equal to that of the latter during the months of May to September, which are amongst the driest months of a European climate. The data for Saugar Island present similar features.

The absolute humidity of the atmosphere is greatest on the coast, and diminishes inland as the distance from the sea increases. In the cold weather and spring months this decrease is rapid almost everywhere. During the hot weather months the proportion of vapour to dry air increases steadily and rapidly, but during the rainy season from June to September, when the province is dominated by humid monsoon winds, the quantity of vapour present in the interior is almost equal to that of the maritime region. The mean relative humidity is high and fairly equable at all the stations excepting Burdwan, where it averages 76 per cent. of saturation and remains between 64 and 80 from October to May. In other parts of the province it ranges between 83 and 88, and rarely falls below 75 per cent. in any single month.

Clouds.

8. Except at the hill stations and in the Sundarbans the average proportion of cloud-covered sky varies between two-fifths and one-half of the whole sky expanse. At Darjeeling and Saugar Island, on an average, the proportion of clouded sky to clear sky is as 3 to 2. December and January are, on the whole, the brightest months of the year, but November, February and March are almost equally serene. June, July, and August are the months of greatest cloudiness.

Rainfall.

9. The monsoon current while moving over the water surface of the Bay flows uniformly and probably with little ascensional motion and loss of moisture except during disturbed weather. After the coast has been crossed, the influence of the rougher land-surface leads to irregularities in the air-motion, especially at the lower levels. These irregularities give rise to eddies, which are accompanied by ascending currents and cause the increased rainfall observed near the coast. The sloping surface of the hills, on the other hand, causes more directly the same upward motion and the rapid increase

of rainfall in the eastern and northern districts. The rainfall is unevenly distributed. Thus the average annual fall ranges between 50 and 75 inches in the south-west, centre, and west, and between 75 and 120 in most places in the south-east, east, and north. It is still heavier in and near the hills, where Buxa has 209 inches, Nagrakata 161 inches, Kurseong 159 inches, and Dam Dim 154 inches. The rainfall is also higher near the coast than on the plains further inland. Thus, Saugar Island has an average of 70 inches and Calcutta of 62 inches. The lowest rainfall in the province is that of the Bankura and Malda districts, where the annual fall averages 54 inches. Of the rainfall-reporting stations, only Onda, Patkabari, and Tanor have an average of less than 50 inches.

By far the greater part of the rainfall of Bengal occurs between the months of June and October. The months of November and December are occasionally rainless, and such rain as falls is almost invariably due to the northward movement of cyclonic storms from the extreme south of the Bay. In the earlier part of the year light rain is of occasional occurrence during the passage of shallow depressions of the class known as cold weather storms. About the middle of February local sea breezes commence on the Orissa and neighbouring Bengal coasts. They increase in force and extend their influence further inland with the increasing temperature of the hot weather months. There occur occasionally during the hot weather months and with greater frequency as the season advances, periods of atmospheric disturbance, the most important feature of which is the occurrence of local hot weather storms, usually called "nor'-westers." These thunderstorms are generally accompanied by heavy rain showers and occasionally, early in the season, by hail. The rainfall gradually increases from February to May. In the second week of June the local sea breezes are replaced by the steadier sea winds of the south-west monsoon. From June to October rain is abundant in every part of the province, and is due mainly to winds advancing from the Bay of Bengal.

In Calcutta (Alipore) the largest annual rainfall on record is that of 1871 when it amounted to 97·47 inches and the smallest is that of 1895, when the registered total fall was only 39·38 inches, the heaviest rainfall at Calcutta in 24 hours is 14·53 inches recorded at 8 A.M. on the 20th September 1900; and in two consecutive days, viz., 20th and 21st September 1900, it reached 25·36 inches. One of the most remarkable features of the rainfall of Bengal is the occasional occurrence during the rains of excessive local precipitation during periods which rarely exceed 24 hours in length. These appear to occur chiefly along the Himalayas. Thus on the 25th September 1899, 19½ inches were registered at Darjeeling, 15·18 inches at Kurseong and 13 inches at Mongpoo. Such downpours are usually associated with cyclonic storms.

Winds and storms.

10. Broadly speaking, dry land winds, chiefly from between north and west, prevail from about the middle of October to February, and damp winds varying in direction from south-west to east, during the rest of the year. The hot damp air of Bengal lends itself with exceptional ease to the development of storms, and almost every type of disturbance is liable to occur: with each of them hail may be associated in considerable quantities. The ordinary thunderstorm that is produced in sultry weather in other countries is well represented in Bengal throughout the year except in the cold weather. The line squall of the temperate regions has much in common with the "nor'-westers" that are found in Bengal in the hot weather, when dry north-westerly winds impinge on moist air brought by southerly winds from the Bay: characteristics of these are the strong cold winds which blow outwards in advance of them and their approach almost invariably from a north-westerly direction. Tornadoes and waterspouts, such as are experienced in the United States, occur at long intervals, but their extremely violent winds create very great havoc over the narrow path along which they travel.

Cyclones.

11. Lastly, there are the cyclones and cyclonic storms which cover areas several hundred miles in diameter and are formed over the Bay of Bengal; these are all marked by the same features of vortex-like movement

of the wind in the direction opposite to the hands of a watch, progressive advance from the interior of the Bay towards the coast and very heavy rainfall over and near the area of cyclonic disturbance. They differ, however, very considerably in extent and intensity. Those which occur in the rains proper (*i.e.*, the months of June, July, August, and September) are generally small in extent, the barometric depression at the centre seldom exceeds half an inch and the air motion though it may be violent is rarely of hurricane force. The most destructive cyclones that have passed over Bengal have been generated during the transition periods, that is, during the months of April and May, October and November. These, however, are of less frequent occurrence than the storms of the rains proper. They consist of an outer storm area, an inner storm area, and a central calm. In the outer region the winds are strong, with frequent squalls, and the sea is high, the barometer being not much lower than usual.

In the inner storm area the barometer falls very considerably, the winds are of hurricane force, the squalls and rainfall of excessive violence and the sea tremendous. In the calm centre the air is still and lazy, though the sea is usually very much disturbed.

The wind system frequently produces a destructive storm-wave when the centre reaches a gradually shelving coast. In the Calcutta cyclone of October 1864, the storm-wave inundated the low-land lying on each side of the Hooghly, and drowned 48,000 people; and winds of hurricane force did enormous damage to trees, buildings, and shipping. Even this was surpassed by the storm-wave which accompanied the Bakarganj cyclone of October 1876, when at least 100,000 people lost their lives during the inundation. The False Point cyclone of September 1885 was peculiar in two respects. It occurred during the monsoon months, but was of unusual severity though of very narrow area, and was accompanied by a storm-wave which destroyed the station, the water rising to a height of about 22 feet above mean sea level. The following table gives the number of storms of great and moderate intensity that have occurred in the Bay of Bengal during the period 1877 to 1920. The information is taken from Dallas's Meteorological Atlas of the Indian Seas and from the annual summaries issued by the Meteorological Department:—

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total year.
Storms of great intensity.	...	...	1	3	12	9	7	8	10	15	24	11	95
Storms of moderate intensity.	2	...	...	3	8	31	47	45	50	36	17	7	246

CHIEF STAPLES.

Rice.

12. Rice has been a valued food-crop in India from the earliest times, the name by which it is generally known in Bengal, viz., *dhan* or *dhanya*, signifying in Sanskrit "the supporter or nourisher of mankind." At the present day it is widely cultivated throughout India, and in the Presidency of Bengal it forms the chief article of human food. The coarse early varieties of rice are mainly eaten by the poorer classes, while the richer classes eat the finer late rices. Pulses, fish, vegetables, oil, salt, spices, and other condiments are added to give rice a relish. The nitrogenous nutritive element which exists in small quantities in rice is supplemented to a great extent by the pulses which are consumed with it. According to the best source of information available, which cannot be said to claim any strict accuracy, the normal area cultivated with rice is estimated roughly at about 23,000,000 acres. The gross area of the Presidency being in round numbers 50,000,000 acres, and the total cultivated area (for 1921-22) being

estimated at approximately 28 million acres, it will be seen that the rice area comprises about 46 per cent. of the gross area and 82 per cent. of the actual cropped area.

There are innumerable varieties of rice familiar to cultivators under distinctive names, and possessing particular properties which make their cultivation suitable to particular localities. These varieties may all be referred to three main classes according to the land in which they are grown, the season of the year when they are reaped, and the period taken in coming to maturity. These classes are—(1) the *aus* or early rice crop, (2) the *aman* or winter rice crop, and (3) the *boro* or spring rice crop.

Aus or early autumn rice (so called from the Sanskrit *asu*, early) is grown generally on high lands which are above inundation level, but also in the eastern districts on low lands, where two or three feet of water are to be found during the rains. After the harvesting of the *rabi* crop, the land is well ploughed and then the seed for the *aus* crop is sown broadcast, generally with the first showers of rain in April and May, and the crop is harvested during the months of July, August, and September. It is also sown in some parts of East Bengal as early as March. *Aus* rice requires less water than the other two main classes of rice, but at the same time is more dependent on the season and requires more attention in its cultivation. Early rice occupies the land for a comparatively short time, some varieties being ready for the sickle in 60 days, and this allows the land to be cultivated also with cold-weather crops. *Aus* rice is, as a rule, broadcasted but it is occasionally transplanted in certain districts, especially in parts of Eastern and Central Bengal. Its outturn is generally less than that of *aman*, and its market price lower. It is very useful in supplying a food-grain and fodder at a time of the year when the stock of *aman* rice of the previous year is approaching exhaustion. The grain of *aus* rice is generally coarse and rather difficult to digest, and is eaten commonly by the poorer classes. The normal area under this crop in Bengal is estimated at about 5,000,000 acres, or about one-fourth of the total rice area.

Aman rice includes the largest number of varieties grown, and occupies almost three-fourths of the rice area of the Presidency, the normal estimated area being about 17,000,000 acres. The varieties of *aman* differ much from each other in the fineness of the grain, and in their colour and flavour. The crop is broadly divided into two principal kinds, according to the method of cultivation followed, viz.—(*a*) the *ropa*, *rupa* or *sail dhan*, which is transplanted; and (*b*) the *chitta* or *buna dhan*, which is generally broadcasted. The finer varieties of rice, which are eaten by the well-to-do classes and also exported, are obtained from *ropa dhan*. The seed is first sown in high, well-drained seed-beds, and when the seedlings have attained a height of nine to eighteen inches, they are transplanted in bunches of five or six into low lands where rain-water has collected, and which has been carefully prepared by repeated ploughings. The first of these ploughings is, as a rule, not given till the first showers of April and May. This kind of rice does not require much water and will grow well in knee-deep water. In fact, it is often transplanted into *aus dhan* lands after the *aus* crop has been reaped. It is sown generally in April or May, transplanted from June to August, and reaped in November or December and sometimes even in January.

Chhita or *bhuna aman* grows generally in low-lying marshy lands where the seed is broadcasted, though at times seedlings are transplanted when the land is not too low-lying for this operation. The land receives its first two or three ploughings about the end of January or the beginning of February. These ploughings are continued at intervals up to the beginning of the early rains, when the seed is sown broadcast. The after-treatment of the crop is similar to that of the *aus* crop. It is harvested in December and January. Of all kinds of rice, this has the longest stem and the most rapid growth. The stems grow to a height of ten to twenty feet, keeping pace with the rising water, and are sometimes known to shoot up twelve inches in twenty-four hours. Sudden flooding proves destructive to the

crop by overtopping the plants or uprooting them when the current is strong. Some varieties, however, are known to bear submersion for several days. In some districts certain kinds of *aman* and *aus* are grown together so that, should one crop fail, the raiyat can fall back on the other. In such cultivation the land is prepared in the same way as *aus* paddy land, and sown with a mixture of *aus* and *aman* seed, the proportion being two-thirds of the former and one-third of the latter. The *aus* crop is reaped at the usual time, and the *aman* in the month of December.

The third main class of rice, *boro* or spring rice, is generally coarser and harder to digest than the other varieties. Like *aus*, it is consumed by the poorer classes. The estimated normal area under this rice is only about 400,000 acres. The crop is a hardy one, and is cultivated on *chars*, edges of *jhils*, *khals* or streamlets, and soft marshy lands. The seed is sown in a seed-bed generally from October to January, and the seedlings transplanted from December to February in river-beds, when the water is at its lowest level. The crop is harvested in about three months.

Boro is often cultivated together with a kind of rice known as *raida* or *bhashanaranga*. The seed is mixed in the proportion of one part of *raida* to five to nine parts of *boro*, and is then sown in the nursery about the end of October. The seedlings of both kinds are then transplanted in the *bils*. The *boro* paddy is generally cut in April, when with it the tops of the *raida* paddy, which is yet but half-grown, are taken off. Although thus shorn during the harvesting of *boro*, the *raida* plants do not suffer in any way, but come to maturity in September and October, when the crop is cut.

As rice is the most important food-crop of the province, much attention has naturally been paid to the improvement of this crop by the Bengal Department of Agriculture. Extensive surveys of varieties have been carried out by the Government Botanist with a view to the selection of high-yielding types suited to the various districts of the province. As a result of this work, one pure race of transplanted *aman* and one of broadcast *aus*, commonly known as *indrasail* and *kataktara*, respectively, have already been widely distributed, mainly in the eastern districts, and are now grown over extensive areas, amounting probably to about 100,000 acres. This work is still in progress and the department is now in possession of several other high-yielding types, suitable for various conditions.

The work of harvesting is generally done by men, but in many parts of Bengal, especially among the poorer raiyats, women also assist. The transplanted *aman* and the *aus* crops are usually cut close to the ground. In the case of deep-water *aman*, where the stems have been submerged and are useless for straw, the ears alone are cut off. The crop after being cut is carried home, either on the heads of reapers or in carts, or by *banghis* and often by boat. The threshing-floor is usually a bare portion of ground plastered smooth with a mixture of cow-dung and water, and the grain is separated from the straw by cattle treading on it, or by men beating it on a plank. The winnowing is done by means of a basket held over the head. The lighter chaff is blown away by the wind and the clean grains fall to the ground. Husking is done with a wooden lever called the *dhenki*, which is worked by the women of the household. When the paddy has been threshed, some of it is sold to pay the rent, some is given to the money-lender to clear the raiyat's debt, and the rest stored for household use or for sale. The grain is stored in large baskets, in stacks, or in godowns. The baskets used by the poorer cultivators are of a roughly cylindrical shape, plastered on the inside with cow-dung and mud to keep them air and water-tight. Wealthier villagers, who carry on a regular trade in rice, store their paddy in circular stacks called *golas*, or in houses with thatched roofs and mud walls.

In the absence of any special agency for the collection of agricultural statistics in Bengal, the average outturn of rice per acre cannot be stated with accuracy. It varies much according to season, locality, and the variety of rice grown. From the best sources of information available, the

average outturn of cleaned or husked rice per acre for all classes of lands has been estimated at $10\frac{3}{4}$ maunds for early rice and $12\frac{1}{2}$ maunds for late rice. There is at present no large rice-milling industry in Bengal, such as exists in Burma, but there are indications of a development in this direction. Rice is ordinarily husked by the cultivators before sale, except that portion which is at once sold to pay the rent. After payment of the rent the members of the cultivator's family convert the paddy into rice, the employment of hired labour for this purpose being uncommon. Paddy is either sun-dried or steamed before being husked. Only about 50 per cent. of clean rice is obtained from sun-dried paddy, a large percentage being lost by breakage. This rice is called *atap* or *alo*. The steaming process gives about 66 per cent. of clean rice known as *siddha* or *ushna*. The cold-weather paddy may be purchased during December and January at cheap rates, but after that the raiyat will not sell his paddy in any large quantity, and he can only be induced to do so on being offered a price almost equal to the value of rice.

Bengal is the most important rice-producing area of Northern India, and the quantity produced is usually much more than is required for local consumption. The surplus finds its way, generally speaking, to three destinations from which the rice-trading operations of Bengal are conducted, viz., first to Calcutta, to feed the town population and also for foreign exportation; secondly, to Bihar and the United Provinces of Agra and Oudh, where the demand for rice is always in excess of the local supply; thirdly, to Chittagong, which is the centre of a fairly large export trade by sea. In Calcutta various commercial rices are to be found, known by distinctive trade names. The best known of these, classified according to the localities they come from, are—(1) Bakarganj rices, known as *balam* and *sholoi*; (2) *deshi* rices from the districts surrounding Calcutta, viz., the 24-Parganas, Nadia, Jessore, Midnapore, Howrah, and Hooghly; (3) a variety grown in the 24-Parganas district is also known as *Patna* rice; (4) Burdwan, Birbhum, and Bankura rices known as *rarhi;* (5) Rajshahi rices known as *uttara;* (6) coloured rices known as *kajli;* and (7) rices imported from Burma, known as *Rangoon*.

Wheat.

13. Wheat is not a crop of much importance in Bengal, the total normal area sown being estimated at about 200,000 acres. Its cultivation is practically confined to the western districts, chiefly Birbhum, Nadia, Murshidabad, Darjeeling, Malda, Rangpur, Pabna, and Rajshahi. About five or six varieties are found, almost all of which are common bearded wheats belonging to the sub-species *triticum vulgare*, with red or white soft grains. A macaroni wheat with hard translucent grain also occurs, chiefly in Malda. The land for wheat is prepared usually in November; but in soils which lose their moisture rapidly, or in localities where the rains stop early, sowing takes place in the middle of October. The seed-rate is often as high as 100 lbs. per acre, and the normal rate of yield is estimated at $9\frac{1}{10}$ maunds per acre. The principal kinds known to the trade and exported from Calcutta are—(1) club wheat, containing a mixture of white and red grains, (2) hard red, and (3) soft red.

Barley.

14. Barley is an important crop in Bihar but in the province of Bengal it is unimportant, the total area sown in 1921-22, the latest figure available, being estimated at about 84,000 acres, while the normal is estimated at 135,000. Its cultivation is more general than that of wheat, being most common in the districts of Murshidabad, Rajshahi, Malda, Pabna, Dacca, Faridpur, and Mymensingh. It is grown on up-lands which have lain fallow during the rains or on high-lying paddy lands which have borne an *aus* crop. Sowing takes place in October and November and harvesting in March and April. The seed-rate varies considerably, but on an average is about 100 lbs. per acre, and the normal rate of yield is estimated at about 11 maunds per acre. It is cultivated almost solely for home consumption, the grain being usually ground into a coarse meal and made into *chapattis*, either alone or mixed with *dal*.

Millet.

15. Five or six different sorts of millet are grown in Bengal, but their cultivation is confined to small areas, and none of them is of much

importance. The chief are *marua* (*eleusine coracana*), *china* (*panicum miliaceum*) and *kaon* (*setaria italica*). The only districts where they are cultivated to any extent are Dinajpur, Malda, Midnapore, and Darjeeling, and the total estimated area under millets is about 30,000 acres.

Murua is cheaper than rice, and is much eaten by the lower classes. Unlike other cereals, it can wait for some time to be reaped, as the grains adhere closely to the ear and do not fall off readily. The straw is left in the ground for cattle to graze on, or may be used as fuel. The grain is generally converted into flour, which is used for making bread among the lower classes. It is also eaten boiled in water like rice, with which it is sometimes mixed before boiling.

China and *kaon* are grown both on high and low lands. *China* may be sown almost at any season. When sown after the rains, *kaon* is reaped in March and April, but it is sometimes sown in June and cut in August, September or October. These grains are boiled in water like rice and are sometimes eaten with milk and coarse sugar. The cultivators of East Bengal generally cook *china* or *kaon* with rice, the proportion being three-fourths of the latter and one-fourth of the former. The outturn of millets is about 10 maunds per acre.

Maize.

16. The normal area under maize in Bengal amounts to about 99,000 acres, about half of which is in the Darjeeling district. The only other districts where it is cultivated to any extent are Malda, Jalpaiguri, Midnapore, and Burdwan. In addition to the field cultivation, it is also largely grown in small patches round homesteads, and eaten as a vegetable in the green state. The ripe grains are prepared and eaten like barley. It is a cheaper grain than barley or wheat, but dearer than the millets. The yield is about 10 maunds per acre.

Pulses or dal.

17. Pulse or *dal* is an indispensable article of food throughout the province. The commonest pulses are *but* or *chola* (*cicer arietinum*), *masuri* (*ervum lense*), *mashkalai* (*phaseolus mungo*), *mung* (*phaseolus radiatus*), *matar* (*pisum arvense*), *khesari* (*lathyrus sativus*), and *rahar* or *arhar* (*cajanus indicus*). The area under pulses, including gram, according to the latest estimates, is 1,700,000 acres and forms 7 per cent. of the total area under food-crops. Bengal has to import a large quantity of pulses for its own consumption from Bihar and the United Provinces and quite a large pulse trade is carried on in country-boats between Bengal and Bihar. With the exception of *arhar*, the pulses are usually sown as cold-weather crops in twice-cropped land, after jute, *aus* paddy or even *aman* paddy. Sowing-time varies from early September to late November according to the kind of pulse. *Mash* or *matikalai* and *khesari* are often broadcasted over rice fields in October and November as soon as the flood water recedes. *Masuri* and *but* are not generally sown except after cultivation. *Mung* and *mash* are also sometimes sown as *bhadoi* crops in June and reaped in September. There are two varieties of *arhar*, one being reaped in April, another in December and January. *Arhar* is a hardy crop and grows in high land, which it occupies during the whole year. It grows on any class of land and the stalks are used as fuel. *But* or *chola* is an important crop in the districts of Nadia, Murshidabad, Jessore, Rajshahi, and Pabna, and occupies about 12 per cent. of the total area under pulses.

Vegetables.

18. Either in a cooked or a raw state, vegetables (*tarkari*) invariably form a part of the food of the whole population. The cultivation of vegetables, especially of English vegetables, is rapidly extending, and many cultivators (*e.g.*, the Poora caste), devote themselves wholly to their cultivation and earn a livelihood by their sale. The most common and important vegetables are the egg plant, *brinjal* or *baigun* (*solanum melongena*) and *patal* or *palval* (*trichosanthes dioica*). The *brinjal*, of which there are many varieties, yields two crops in the year, and is cultivated in almost every garden. *Deshi kumra* and *belaiti kumra* (*cucurbita pepo* and *cucurbita maxima*) and *lau* (*lagenaria vulgaris*) come next in order of importance. The creepers of these gourds may be found almost everywhere in Bengal, either climbing on the thatched roof or trailing on bamboo stages made for the purpose. Cauliflower (*phul kobi*) and cabbage (*kobi*) are

common; beans (*sim* and *barbati*), tuberous roots (*ol*, *man*, and *kachu*), *bhindi* or *dheras* (*hibiscus esculentus*), garlic (*roshun*), radishes (*mulla*), spinach (*sag*) of various sorts, and onions (*piyaj*) are universal. A small vegetable garden is an invariable adjunct to the raiyat's homestead.

Potatoes.

19. The cultivation of the potato was first introduced into Bengal by the English towards the close of the eighteenth century. There was strong prejudice against it for a long time as an article of food, specially among the orthodox Brahmins, but now it is eaten by a large proportion of the population. Two types of potatoes are grown in Bengal—the Naini Tal, which is white and mealy, and the Patna, which is yellowish and waxy. In Bengal the chief potato-growing districts are Hooghly, Burdwan, Rangpur, Jalpaiguri, and Darjeeling. In Hooghly and Burdwan, where castor-cake is used as a manure, the cultivation is commonly carried on very carefully in the beds of dead rivers, or in other lands which are commanded by irrigation, which is very necessary for the crop in this tract. Canals, tanks or *jheels* may form the source of irrigation water. In Khulna and in Northern and Eastern Bengal good crops are obtained without irrigation. Darjeeling potatoes are remarkable for their size. Though waxy in texture, they are superior in quality to the potatoes grown in the plains. Large quantities are therefore raised for exportation. The exports of potatoes on the Darjeeling-Himalayan Railway fell from 14,488 maunds in 1884 to 4,803 maunds in 1888 and to almost nothing in 1901, owing to the ravages of the potato blight. In 1911, however, the export was 54,000 maunds, while last year (1921-22) it was 136,000 maunds. The outturn varies in different parts of the province. In Hooghly and Burdwan twelve to sixteen fold of the seed sown is ordinarily harvested. With careful cultivation, large seed, good manure and irrigation, 200 to 300 maunds per acre may be expected. Seed-potatoes are sent from the hills to Patna, whence they are distributed over the districts of Bengal. Naini Tal, Darjeeling, and Shillong potatoes in large quantities are also sent to Calcutta in October to be used as seed. As a result of the efforts of the Department of Agriculture, the cultivation of potatoes has been widely popularized in recent years, particularly in Eastern Bengal, where they were not previously grown. The potato moth has caused much damage to stored seed within the past few years. The Department of Agriculture is investigating methods of combating its ravages.

"Pan."

20. *Pan* or betel-leaf is grown to a greater or less extent in almost every district of Bengal. It is a creeper, and is cultivated in gardens called *baraj*, generally by a special caste called *barai* or *barui*. The cultivation of the plant requires constant care, but is highly remunerative. A garden lasts for five to twenty years. It has been estimated that one acre yields about 80 lakhs of leaves per annum which sell for about Rs. 2,500, and that the total cost of cultivation per acre for a period of three years is about Rs. 1,500. There are several varieties grown in Bengal, differing in size, colour, and flavour of leaves. The three most common varieties cultivated are—(1) *deshi* in Central and Southern Bengal, (2) *gach* in Northern Bengal, and (3) *sanchi* to a small extent all over the country. A large trade is carried on, for the habit of chewing *pan* leaf is almost universal.

Betel-nut.

21. *Supari* or betel-nut is common in Eastern Bengal especially in Noakhali, Tippera, Bakarganj, and Dacca, and its cultivation is fairly profitable. In Bakarganj and Noakhali the palms are planted in groves of *mandar* (*erythrina indica*), a leguminous tree. The palms fruit when from 6 to 10 years old, and may continue to bear fruit for 50 or 60 years. The nuts are gathered in November.

Fruits.

22. Among cultivated fruits are the following:—plantain, mango, pine-apple, jack, guava, custard-apple, lichee, and several varieties of melon. Many parts of Chittagong Division and Bakarganj district, also the country round about Calcutta are studded with cocoanut plantations. The mangoes of Malda and the plantains of Rampal in the Dacca district enjoy a high reputation. Rampal plantains are largely exported to Calcutta, where they have a ready sale.

Jute.

23. The cultivation of jute, and the manufacture by hand of jute cloth called gunnies, also of ropes, are very ancient practices. The export of raw jute began only so recently as the first quarter of the 19th century, when a few hundred maunds were forwarded to Europe. At first spinning experiments with jute in Dundee, carried out on flax and hemp machinery, appear to have been unsuccessful, and in the market quotations of the time "warranted free from Indian jute" became a standing condition of business (*vide* Wallace—"The Romance of Jute," Calcutta, 1909). Nevertheless the average annual export of raw jute from Calcutta in the period 1820—33 was 11,800 cwts. A few years later, about 1838, the spinning difficulties were surmounted; jute began to take its place as the cheapest material for the manufacture of sacking, and common wrappers, and its export increased rapidly. The average annual export rose from 117,047 cwts., during the years 1838—43, to 439,350 cwts. in 1848—53, and 969,724 cwts. in 1858—63. The Crimean War and the consequent temporary cessation of the exports of Russian flax and hemp (the most serious competitors of jute in the gunny market) gave jute an impetus which it has never lost. Exports of raw jute began to increase enormously till they reached 16,000,000 cwts. in 1911-12, and 17,500,000 cwts. in 1912-13. The advent of the war in 1914-15 reduced these figures greatly and they were as low as 5½ million cwts. in 1917-18. In 1921-22 they had only recovered to 9,335,000 cwts. On the other hand the consumption of jute in Indian mills has remained substantially steady during the last decade. The first Indian jute mill was established about the year 1855. To-day there are 58 mills in Bengal employing nearly 300,000 people, and consuming on an average about two-thirds of the total quantity of jute produced.

Jute can be grown in almost any type of soil which has the necessary depth, as well as sufficient water to keep the soil moist. A swampy soil and an excessively damp atmosphere are not necessary for its successful growth. In fact the finest jute is grown on land which never goes under water. The best crops of jute cannot be raised on shallow stony land or on the acid red laterite soils which are to be found, *e.g.*, in the Madhupur Jungle tract in Bengal, but outside these tracts the crop thrives well in most parts of the province, and best of all perhaps in the rich alluvial areas in Eastern Bengal, which are renewed every year by the silt deposited by river floods. On lands which receive such an annual deposit of silt the cultivators are in the habit of using little or no manure, and yet with favourable weather conditions they reap large crops every year. On high lands which are never submerged it is the custom to manure for each crop of jute. Practically the only manure used at present for jute as for all other crops in Bengal is cow-dung mixed with ashes and other house refuse. A common dressing of such manure is from 50—75 maunds per acre; but in some cases 100 maunds and even 150 maunds per acre are applied.

After the land has received the usual ploughings the seed is scattered broadcast at the average rate of 8—10 lbs. per acre. The time of sowing varies from the middle of February in low-lying *char* lands to the beginning of June in western and south-western districts, where sufficient rain often does not fall before the latter date. The crop after being weeded and thinned at intervals is ready to be cut from July to October. In the meantime low-lying tracts become submerged to a greater or less depth, and it is not uncommon to see men cutting jute, standing in water up to waist. Some jute is cut very young, in order to prevent its entire destruction by a sudden rise of the rivers. The jute which comes into the market before the middle of July is usually immature, and may be a hastily-reaped crop or the produce of a late thinning operation. The great bulk of the jute crop may be said to be cut at about the time when the flowering stage is approaching completion, from the middle of July to the end of August. A longer and finer fibre is more easily obtained in this way. The cut stems are tied in bundles, and, as a rule, immersed at once, especially in flooded districts. In Western Bengal, however, on high land it is the custom, before steeping, to place the bundles on the ground in a long line overlapping each other, so as to produce a preliminary fermentation and facilitate the subsequent retting process. After immersion, retting may be complete in a week to ten days in the hottest part

of the season, but after the beginning of September it takes much longer. On the completion of the retting process the bundles of jute are taken out of the water, when it is found that the bark which contains the fibre has become quite soft and can easily be separated from the central pith. After being stripped from the stem, the fibre only needs careful washing and drying to be ready for the market. On first class land, in a favourable season, a return of over 30 maunds (6 bales) is comparatively common and one of the pure races produced by the Department of Agriculture has actually given over 7 bales per acre. On the other hand, under adverse conditions, the average yield over large tracts frequently falls to 10 or 12 maunds per acre ($2\frac{1}{2}$ bales), or even less. The results of a large number of crop-cutting experiments during the last 15 years indicate that the average outturn, taking all classes of soils into account, is $16\frac{1}{3}$ maunds or 3·3 bales per acre.

There are two main varieties of the jute plant in common cultivation in Bengal—(*a*) *corchorus olitorius* (long-fruited jute) locally known under the following vernacular names:—*bangi pat, tosha, desi pat*, etc.; and (*b*) *corchorus capsularis* (round-fruited jute) known variously as *deswal, bara pat, aussa*, etc. The former is more commonly cultivated in the districts surrounding Calcutta, such as Hooghly and Jessore. It is also very common to the north of Calcutta as far as Goalundo, in Rajshahi, and in parts of Pabna. On lands that become deeply submerged it does not thrive so well as *capsularis*. Its cultivation therefore is likely to be restricted to the higher jute-growing tracts. It is a heavy yielder and produces a strong rather coarse fibre, but the value of its fibre has hitherto been consistently less than that of *capsularis*. In recent years, however, there has been a tendency towards an equalization of prices, and although Calcutta still prefers the fibre of *capsularis*, Dundee is now reported to be in favour of that of *olitorius*. *Capsularis* is more widely grown than *olitorius*. It is practically the only kind of jute to be found in the Jalpaiguri, Rangpur, Mymensingh, and Purnea districts, and by far the most common variety in the Dacca and Tippera districts. It yields a finer, softer fibre than the *olitorius* variety, and once it has reached a height of about 5 feet, it will continue to grow unchecked even when the land becomes deeply submerged.

The prepared jute fibre may enter the market in one of several ways. In the early days of the jute trade it was common for the raiyat to bring his produce to a large centre and there sell it direct to a big dealer. Now-a-days the raiyat usually sells his jute to the *beparis* or native dealers at the various country markets or *hâts*. Itinerant traders called *farias* also travel from village to village buying up small quantities of jute which they take by boat, if possible, to the nearest country market. There they meet both the *beparis*, and also in recent years the representatives of large European firms, who have found it to their advantage to form their own buying agencies at country marts instead of employing the *beparis*, as formerly. Recently, especially in Eastern Bengal, a tendency for direct dealing between the raiyat and the export buyer, to the exclusion of the middleman, has asserted itself. The jute thus collected at smaller stations is then despatched to the larger centres, where it is usually sorted into a number of qualities at present designated Nos. "3," "4," "5," "6," and "rejections," baled and sent to Calcutta. Calcutta however still receives a certain proportion of its jute in 1 maund "drums," but most of such jute comes from the neighbouring country. Freightage charges render baling a necessity in the case of centres distant from Calcutta.

The following table shows how jute has been imported into Calcutta by rail, road, and river during the last ten years. It would seem that about two-thirds of the total produce has been brought to Calcutta by rail:—

Year.	By rail.	By road.	By boat.	By steamer.
	Mds.	Mds.	Mds.	Mds.
1912-13	20,071,558	1,010,370	6,263,742	6,034,005
1913-14	19,813,330	685,240	3,148,320	5,980,559

Year.	By rail.	By road.	By boat.	By steamer.
	Mds.	Mds.	Mds.	Mds.
1914-15	13,968,390	891,870	2,614,862	5,838,433
1915-16	18,627,084	1,322,942	3,145,511	6,888,042
1916-17	15,926,074	849,542	2,202,813	6,964,125
1917-18	12,976,164	475,843	1,838,894	6,821,942
1918-19	13,760,006	349,831	1,952,180	7,462,123
1919-20	15,834,776	425,265	2,020,291	6,441,845
1920-21	15,749,193	504,928	1,787,173	7,389,856
1921-22	13,589,251	315,943	1,404,565	4,752,412

The chief centres of the jute trade outside Calcutta are Narayanganj, Chandpur, Madaripur, Sirajganj, Kushtia, and Goalundo. Of these, Narayanganj, which deals with about 20 per cent. of the total jute crop, is by far the most important, but Chandpur has become a serious competitor in recent years. In a large centre like Narayanganj some firms reconsign the jute to Calcutta, while others bale for export also. The former commonly use a small press, producing a three to four maund bale. For export the standard five-maund (400 lbs.) bale is universal. Of the jute which comes into Calcutta, the greater proportion ultimately finds its way to the Calcutta jute mills; but a large quantity is also rebaled after sorting for export. In 1911 there were 166 jute presses in Bengal, whereas in 1921 there were 292.

The amount of jute consumed by Indian Mills rose from 4,434,684 bales in 1912-13 to 5,466,884 in 1920-21; but it fell to 4,236,558 bales in 1921-22. The number of jute mill companies in Bengal in 1921-22 is 58 with 42,529 looms and 896,815 spindles, as compared with 45 mills with 33,799 looms and 703,684 spindles in 1912-13. The number of hands employed is 284,738 and the capital invested in the mills is about 20 crores of rupees or approximately £13,000,000. The proportion of Indian capital is rapidly increasing. The mills ordinarily confine themselves to the production of the coarser classes of goods, chiefly gunny bags, and hessian cloth, but, owing to the shortage of flax in the war, several companies commenced the manufacture of canvas from jute.

The history of the jute trade in the last ten years is a curious one, for like every other industry it was profoundly affected by the abnormal conditions created by the war. From 1910 to 1914 the trade position was one of increasing prosperity, not only of the mills but the cultivator who produced the jute. Prices of both raw material and manufactured goods showed a continuous upward tendency, the area devoted to jute cultivation increased in proportion, and in 1914, when the war commenced, there was probably a record crop of jute in Bengal. Then followed an extraordinary demonstration of the working of the law of supply and demand. At the commencement of the war, the shipments to enemy countries, amounting to 250,000 bales, were of course automatically suspended; at the same time the amount of shipping available for the export trade was enormously reduced. On the other hand the great demand for sandbags from all allied countries, while sufficient to keep the Calcutta mills extremely busy and to allow of their making enormous profits, was not sufficient to consume the great crop of raw jute in Bengal. The result was that while the war was, to the mills, a period of undreamt of and entirely unprecedented prosperity, to the jute cultivator it was, on the whole, a period of unparalleled depression. At times raw jute was practically unsaleable and the plight of the jute cultivator, who is normally the wealthiest of his class in India, but depends very largely on the sale of his crop to give him the necessaries of life, may be imagined. The position was aggravated by a series of very bad monsoon years which sent the price of rice up to famine level. In consequence the area under jute cultivation fell rapidly

from 2,900,000 acres in 1910-11 to 1,300,000 acres in 1921-22, a reduction of 55 per cent. The corresponding outturns in lakhs of bales were 8,100,000 and 3,600,000. The reduction in the supply of raw fibre has had the desired effect, for prices have risen steadily since the end of the war. At present they are much higher than they have ever been, as current quotations (December 1922) of Rs. 12 per maund for " rejections " and about Rs. 15 per maund for " 6 " will show. Even considering the fact that all prices have risen as a result of the war, the present price of jute is disproportionately high. The cultivator who has jute, to sell, has therefore regained his old position again as arbiter of the market, and he is likely to remain so, for some time at any rate. The mills on the other hand are reduced to the expedient of working short time to avoid swamping the market with gunnies. Their efforts are successful in keeping up prices and although their dividends are not so high as they were during the war, they are still satisfactory.

The following table shows the amount of value of jute—(1) consumed by Indian mills, and (2) exported during the last ten years :—

Year.	Indian Mill Consumption.		Total Exports.	
	Bales of 400 lbs.	Value in rupees.	Bales of 400 lbs.	Value in rupees.
1912-13	4,434,648	Not available.	4,887,730	26,95,17,638
1913-14	4,374,825		4,180,058	30,04,92,516
1914-15	4,806,749		2,790,329	12,76,79,027
1915-16	5,609,843		3,327,778	15,51,60,306
1916-17	5,520,583		2,983,971	16,08,68,498
1917-18	5,296,188		1,557,180	6,45,29,980
1918-19	4,996,755		2,215,814	12,62,66,916
1919-20	5,081,723		3,281,051	24,46,47,259
1920-21	5,466,884		2,641,200	16,33,41,738
1921-22	4,236,558		2,613,929	14,62,29,697

Most of the raw jute is exported to Great Britain, Germany, France, Italy, and the United States. The imports of the European countries consist chiefly of the finer qualities of fibre. The exports to America which used to consist largely of " cuttings " and " rejections " destined for the manufacture of paper, now comprise some of the finest fibre. The United States and the Argentine take nearly 86 per cent. of the gunny cloth exported from India, and several large mills are now operating in the United States. A feature of post-war years has been the rapid recovery of exports of jute to Germany which in 1920-21 imported 72,000 tons, or nearly half the quantity imported in 1912-13.

The question of the extension of jute cultivation does not arise at present, but it will become prominent as soon as normal world conditions begin to be restored. India's possibilities as a rich jute-producing country have by no means been exhausted. Investigations by the Government Fibre Expert have resulted in the production of pure improved races of jute which are capable of yielding, on the average, from three to five maunds more fibre per acre, than ordinary local races of *capsularis* and *olitorius*. Demonstrations to cultivators of the advantages of the improved races have been successful to the extent that there are now at least 150,000 acres of jute grown from pure line seed originally supplied by the Department of Agriculture in Bengal. Eventually too, if necessary, jute cultivation could expand into other suitable areas such as Assam or Bihar and for this purpose the Departmental improved races

are particularly suited. It is probable however that the extended use of other fibres, such as *hibiscus cannabinus*, which is equally, if not better, suited for some of the uses to which jute is put, and which can be produced in tracts where jute cultivation would be impossible, will also take place.

For many years jute has been subject to adulteration of various kinds, but the most extensively practised, as well as the most serious in its effects, is that of "watering," *i.e.*, the adding of water to the fibre in order to increase its weight. This evil reached such a pitch about the year 1905, that the jute trade made a strong demand to Government to introduce repressive legislation.

The matter was seriously considered by Government, but the idea of legislation was ultimately rejected for several important reasons, one of which was that owing to the considerable capacity of jute for the absorption of water vapour from a moist atmosphere, the standard of moisture content would have to be placed much higher than the normal moisture content of good jute, and thus render legal the addition of considerable quantities of water to the fibre. The most serious aspect of the "watering" of jute is the effect which is said to be produced on the fibre by baling it in a moist or wet condition. The belief is universal in the jute trade and it has now been proved in experiments conducted by the Government Fibre Expert that if jute is baled when in a damp condition, it is liable to suffer a very serious deterioration known as "heart damage" in the course of which the fibre is so profoundly affected that it is rendered useless for textile purposes. "Heart damage" is so called because it appears first in the centre of the bale in which it occurs. The experiments in question established the following conclusions:—

(1) Dry jute never suffers "heart damage."

(2) Damp jute containing more than 15 per cent. water when baled gradually deteriorates, in proportion to the amount of water, until the latter reaches 25 per cent. when real "heart damage" ensues.

(3) The conditions of atmospheric humidity are never such as to allow of the absorption of 25 per cent. of water by jute. The incidence of "heart damage" as a natural phenomenon in genuine fibre is therefore impossible.

(4) Fibre which has been exposed to night-dews, or rain, without subsequent drying, or if it has been deliberately watered, is not regarded as "genuine."

(5) "Ship damage" is similar in nature to "heart damage," but appears on the outside of the bale instead of at the centre. It is due to bad ventilation of the hold in which the bales are stowed.

Sunn hemp

24. *Sunn* (*crotalaria juncea*). This is not the true hemp though it is known in the trade and is exported under the name of *sunn* hemp. It differs from the European hemp *(cannabis indica)* which is identical with *ganja* the plant which, in India, produces the drug of that name. On account of its drug-producing properties and the necessity for strict excise supervision in consequence, the cultivation of *ganja* for the production of fibre is prohibited.

In West Bengal, *sunn* hemp is a *kharif* crop, but in East Bengal, especially in the districts of Pabna and Chittagong, it is grown in the cold season on lands which are to grow jute in the succeeding *kharif* season. It is considered to be a renovating crop, being rich in nitrogen and is sometimes used as a green manure to enrich poor land. The plant yields a coarse strong fibre, which is peculiarly durable when immersed in water. It is therefore largely used in Eastern Bengal for the manufacture of fishing nets and cordage. Bengal hemp brings the highest price in the London market. "Prime Bengal" is (December 1922) worth £45 per ton, whereas the price of Jubbulpore hemp is less than £30 per ton. Bengal hemp has a much cleaner staple than hemp from any other tract in India, probably because of the existence in Bengal of a better water-supply for retting.

25. *Dhaincha or dhunecha (sesbania aculeata)* grows in all soils but best in moist soils reaching a height of 10 or 12 feet, yielding fibres from 8 to 10 feet in length but coarser than those of hemp. It is considered, however, to be more durable in water than either *pat* or *sunn*, and is much used by fishermen for drag ropes to their nets. The great value of this plant however is as a green manuring crop, as it supplies the soil with nitrogenous organic matter. It is a leguminous plant that grows very rapidly and is usually ready to be ploughed in within six weeks of sowing. It can resist drought and support an excess of rain. Within the last decade large quantities of seed have been used for green manuring tea and paddy. The dried stalks are used for fuel and as props in *pan* gardens. Dhaincha.

26. *Ganja (cannabis sativa)*, a variety of hemp plant, is cultivated for the sake of the intoxicating drug manufactured therefrom. It differs from the wild hemp which is common all over India, in that it is rather stunted in growth, rarely rising above six feet, and more slender, delicate, and regularly pyramidal. The narcotic property of the plant is due to a resinous substance secreted in minute glands in the flowers. The seeds are mainly preserved for the production of the next crop and are occasionally used for making oil, which is tolerably well adapted for lamps and has also a medicinal value in the treatment of rheumatism. The seeds are also baked and eaten as an article of food, but very rarely. The wood is used for fuel. The most important product of this variety of hemp plant is its flowers which contain the resin. The leaves are not collected although they contain intoxicating matter. *Ganja* is produced from the flower of the female plants and is used for smoking. The drug is also used for manufacture of a medicine—Tincture Cannabine. Hemp.

At one time the district of Jessore used to be the chief seat of *ganja* cultivation but at the present time its cultivation in Bengal is confined to a limited tract of country around Naogaon in the Rajshahi district. The plant is not allowed to be cultivated in Bengal outside the limits of this tract which is known as the *ganja mahal* and like opium, its cultivation is carried on under the strict supervision of Government. *Ganja* requires very careful cultivation. The seed is sown in a nursery in August and transplanted four or five weeks later in the field on ridges which have to be very carefully prepared, kept clean by frequent weedings and hoeings and liberally manured with cow-dung and oil-cake. The fields are also irrigated twice or more according to the character of the season. The difficult portion of the work is in removing the male plants from the field. This work requires special knowledge and is performed by experts called *poddars*. Harvesting takes place in February. The manufacture of the drug also requires special skill and care. Two kinds of *ganja* are manufactured, viz., the flat *choor* and the round *choor*.

The statement below shows in a comparative form the results of the cultivation of *ganja* in Bengal (Naogaon) during the five years ending 1920-21:—

Year.	Quantity of land under *ganja* cultivation.		Number of licenses granted.	Quantity of *ganja* produced.		Average produce per bigha.		
	Bgs.	C.		Mds.	Srs.	Mds.	Srs.	Ch.
1916-17 ...	2,501	17	2,513	4,642	27	1	34	3
1917-18 ...	3,082	9	3,008	8,132	24	2	25	9
1918-19 ...	3,047	6	2,435	6,988	6	2	11	11
1919-20 ...	1,972	14	2,207	4,569	18	2	12	10
1920-21 ...	2,700	1	1,993	6,847	29	2	21	7

The total quantity of *ganja* exported during the year 1920-21 was as follows:—

	Mds.
(1) To Bihar and Orissa	2,189
(2) To United Provinces	605
(3) To Assam	641

		Mds.
(4) To Orissa Native States	...	61
(5) To Sambalpur	...	55
(6) To Cooch Behar	...	70
(7) To Tripura State	...	20
(8) To Foreign countries	...	140
Total	...	3,781

The following statement shows the number of *ganja* shops, the quantity consumed, and the license fees, and duty realized during the year 1920-21 within the Presidency: —

	1920-21.	
Number of shops	1,267	
Quantity consumed	1,840	Mds.
	Rs.	
License fees	22,09,171	
Duty	16,07,287	
Total	38,16,458	

Oil-seeds.

27. Oil-seeds are an important crop in the province and cover about 6 per cent. of the net area cropped in Bengal. Rape and mustard, *til* and linseed are the principal oil-seeds cultivated. There has been a diminution of half a million acres under oil-seeds since the last decennial period ending in 1910-11. Of the total area of 1,600,000 acres now reported to be under oil-seeds; 70 per cent. of the total or 1,140,000 acres is devoted to rape and mustard, 290,000 acres to *til*, which occupies about 17 per cent. of the total area, and 10 per cent. or 169,000 acres to linseed, and the rest 3 per cent. or 70,000 to minor oil-seeds, *e.g.*, castor, *nigar* (*sarguja*). Rape and mustard oil is extensively used for food and culinary purposes as well as for application to the person. *Til* seed is used for food and the oil though hardly ever used for cooking has the reputation of absorbing floral aromas and is used as a base in scented floral oils. Linseed is mostly exported from Bengal. The use of vegetable oil for lighting purposes has been almost superseded by kerosine oil. The residual cake after extraction of oil from the seed is valuable both as fodder and as manure.

The following table shows the exports by sea from Bengal for the 11 years ending in 1921-22:—

Year.	Linseed.	Rape.	Mustard.	Sesamum.	Castor.	Cotton.	Ground-nut.
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1911-12	279,153	11,700	332	3,494	1,871	1,847	40
1912-13	164,678	1,028	223	2,892	9,054	1,627	43
1913-14	200,503	7,989	148	4,000	9,990	1,579	22
1914-15	207,095	5,990	170	2,566	3,101	250	111
1915-16	98,713	30	757	3,492	4,610	162	89
1916-17	100,796	3,443	769	3,247	4,755	1,436	58
1917-18	28,637	15,853	677	3,129	2,618	1,052	7,837
1918-19	125,293	9,327	526	1,235	4,516	804	2,489
1919-20	138,150	2,898	892	2,245	1,029	4,256	3,841
1920-21	105,107	3,643	348	1,821	1,033	1,561	77
1921-22	119,849	2,409	442	4,548	907	1,403	45

28. Linseed is the produce of the common flax which is grown in India for the oil obtained from its seed. The normal area under linseed as reported in 1921-22 is 167,000 acres. Linseed is a cold-weather crop and is sown and reaped at the same time as wheat and lentils. It does not require much cultivation and prefers a clayey soil. It is grown largely in the district of Nadia, which alone accounts for 30 per cent. of the total acreage under this crop in the province. Next to Nadia come the districts of Murshidabad, Jessore, Rajshahi, Pabna, Mymensingh, Faridpur, and Noakhali. Linseed is exported to a far greater extent than any other oil-seed, a very small quantity being retained for local consumption. The normal outturn per acre is $5\frac{2}{3}$ maunds or 467 lbs. and the seed is estimated to yield about one-fourth its weight of oil. **Linseed.**

29. The chief centres of cultivation are the districts of Rajshahi, Dinajpur, Jalpaiguri, Rangpur, Bogra, Pabna, Dacca, Mymensingh, Faridpur, and Tippera where there are extensive tracts of alluvial land. The area under rape and mustard is only 1,100,000 acres and has diminished greatly since the year 1910-11 when the estimated area was 1,500,000. The most important varieties of the crop are *tori* (known locally also as *maghi sarisha*) the earliest maturing variety, the yellow *sarson* or *swet sarisha*, and mustard or *rai sarisha*, both the latter being late crops. The seed is generally sown in October or November and the early *tori* is harvested in the latter part of December or the first week of January. *Sarisha* and mustard are harvested later. The normal outturn is about 6 maunds or 480 lbs. per acre and the yield of oil is about 12 to 13 seers to the maund. Several mills with up-to-date machinery for the expression of oil have been established in Calcutta, but large quantities of oil are produced in the mufassal in the local country *ghanies*. There are no arrangements for refining the oil. **Rape and mustard.**

30. There are two varieties of *til*, one being sown in July and September and gathered during November and December, and the other sown in January or March, and reaped in June and July. Both the summer and winter varieties are grown in almost every district of the province. The area under this crop is practically constant and approximates 300,000 acres. There are three principal types of *til*—the white, the brown, and the black—the last being the chief kind cultivated. The normal outturn per acre is $6\frac{1}{3}$ maunds or 504 lbs. per acre and one maund yields about 14 seers of oil. **Til.**

31. The raiyat seasons his food with a great variety of condiments. Over 150,000 acres are estimated to be under cultivation. Chillies (*lanka*, *marich* or *jhal*), which form a most important crop, are cultivated in large quantities in the cold weather in the Presidency, Rajshahi, Dacca, and Chittagong Divisions, particularly in the Nadia district and in the south of Jessore. Amongst a community addicted to fish, turmeric (*haldi*) is extensively used in curries and in all sorts of vegetables and animal food. It is cultivated all over the province, but nowhere on a large scale. Ginger (*adrak*) is also an important crop, especially in the Rangpur district. It is eaten with animal food and also used as a medicine. Coriander (*dhaniya*), black cummin (*randhani* or *kalajira*), cummin (*jira*), and aniseed (*mouri*) are grown in small quantities for local consumption. **Condiments.**

32. In the plains districts of Bengal, cotton scarcely exists as a field crop except in Bankura and Midnapore in the Burdwan Division. The total acreage of cotton is only about 4,000 acres in the two districts, where the aboriginal Santals grow a little patch of cotton round their holdings for family use. There is little export. In Bankura two varieties of cotton are grown, one called *kherua* and the other *borya*. One is sown in June and harvested in December, and the other is sown in October and harvested in March. Neither of these is of any commercial importance. Cotton is, however, grown to a large extent in the Chittagong Hill Tracts where the normal area is reported to be 55,000 acres and where the cotton is sown simultaneously with paddy and *til* in the *jhums* or jungle clearings. The variety cultivated has a staple so short and coarse that it is used almost solely for mixing with wool. Most of the crop is exported to Europe for this purpose. Since the outbreak of the war in 1914, and the consequent rise in the prices of textiles there has been an agitation (in large measure **Cotton.**

political), which has aimed at introducing the cultivation of cotton in the plains of Bengal. It has met with little success, as the climatic conditions of the province make it impossible for cotton to compete successfully with jute and other paying crops. The following statement shows the export and import of raw cotton, from and into Bengal, during the last 10 years:—

Year.	Export.	Import.	Year.	Export.	Import.
	Tons.	Tons.		Tons.	Tons.
1912-13 ...	20,438	33,188	1917-18 ...	11,627	28,185
1913-14 ...	32,664	46,357	1918-19 ...	9,217	25,173
1914-15 ...	20,732	64,624	1919-20 ...	27,161	50,341
1915-16 ...	24,348	33,509	1920-21 ...	15,990	18,869
1916-17 ...	16,970	26,625	1921-22 ...	26,009	49,721

Date-sugar.

33. Sugar is manufactured both from the sugarcane and from the wild date tree. The cultivation of the date tree and the manufacture of date-sugar are extensively carried on in a compact block of country comprising the districts of Jessore, Khulna, Faridpur, and the eastern parts of Nadia and the 24-Parganas. It is a popular and profitable business for the cultivators. The date tree is cultivated to a small extent in many other districts, where its juice is chiefly used as a beverage, fermented or unfermented. The tree flourishes in moist alluvial soil above the inundation level. In the districts where it is chiefly cultivated it is grown in regular plantations, and along the borders of fields. One acre of land, if well stocked, may carry about 450 trees. The trees arrive at maturity in five to seven years and continue to yield juice for from 20 to 30 years. The juice is extracted from the trees during the four months of the cold season. It is estimated that a tree yields on an average about 23 lbs. of *gur* or jaggery, valued at 11 annas, during the season. Some trees yield twice this amount. The juice contains 10 to 13 per cent. of sugar, the sugars being the same as occur in cane juice. The colder the weather, the larger is the yield of juice. The raiyat gets a clear profit of about 4 to 6 annas from each tree and he sometimes also enjoys the advantage of raising a *rabi* crop or a *bhadoi* rice crop on the ground occupied by the date garden. The juice is boiled in earthen pans which are never cleaned and so the process is a wasteful one. There is a large native refining industry in the date districts. The manufacture of date-sugar seems to have been declining during the last 15 years but there are hopes of its recovery. Trustworthy estimates of the total acreage under date trees and of the total production of date-sugar are not available. The latest estimates received from district officers go to show that about 70,000 tons of date *gur* or raw sugar are produced in Bengal. *Gur* or molasses and date-sugar are largely consumed in the districts in which they are manufactured, and are also exported to Calcutta and the surrounding districts. An exhaustive chemical and agricultural survey of the industry was carried out by Mr. H. E. Annet, Agricultural Chemist, and the results have been published.

Sugarcane.

34. Sugarcane, of which there are numerous varieties, is grown throughout the province. It is most extensively cultivated in the Rajshahi, Dacca, Presidency, and Burdwan Divisions. The total area under sugarcane in the province is believed to be about 222,600 acres. Sugarcane is also largely grown in the Native State of Cooch Behar.

The cane is generally grown on high lands that are easily irrigated and not subject to inundation. In the damper districts of Eastern and Northern Bengal, the crop requires little or no irrigation. There are two or three varieties of sugarcane which grow in the submerged tracts of the

Madaripur subdivision of Faridpur, where about 3 to 5 feet of water accumulates during the rains. These varieties are planted in December or January and harvested in August and September. The cost of cultivation and manufacture varies considerably in all the divisions. In some districts sugar and *gur* are manufactured for home consumption only, while from others they are exported to other districts as well. Iron mills which have come into universal use for the extraction of cane juice have lowered the cost of manufacturing sugar. There are numerous factories in Bengal where sugar is refined according to native methods. The towns of Kotchandpur and Keshabpur in Jessore, Gobardanga and Sukchar in the 24-Parganas, and Santipur in Nadia, still contain a large number of refineries and carry on a large trade in both date and cane sugar. The trade however has suffered greatly in recent years owing to competition with imported sugar. There are several kinds of native refined sugar. An essential feature of the native method of refining is the use of some species of aquatic weed. The raw jaggery or concrete sugar is placed in earthern vats having a hole at the bottom or in baskets. Over it is spread a thick layer of weed, the water contained in which filters through the mass and carries with it the molasses, leaving the crystallizable portion as a more or less granular sugar. The sugar trade in Calcutta has undergone a serious revolution in the course of the last thirty-five years. Not many years ago Bengal used to export sugar largely to European countries; but the export trade has been nearly destroyed by the invasion of the home markets by Java sugar. On the other hand a large trade has sprung up in the importation of sugar, especially from Java, which sends 95 per cent. of the sugar imported into Bengal. These facts will appear from the statistics of the sugar trade of Calcutta given below :—

Year.	Imports into Calcutta by Sea.		Exports from Calcutta by Sea.	
	Unrefined sugar.	Refined sugar.	Unrefined sugar.	Refined sugar.
	Mds.	Mds.	Mds.	Mds.
1881-82	.....	66,430	116,193	101,987
1891-92	190,445	620,570	30,834	56,077
1912-13	2,213,985	7,382,958	45,738	50,540
1913-14	2,032,428	9,523,353	24,400	121,476
1914-15	2,843,030	5,284,773	21,138	359,463
1915-16	3,108,641	5,009,921	16,992	28,821
1916-17	2,281,099	5,116,649	22,248	62,399
1917-18	1,021,333	6,407,184	7,683	25,533
1918-19	507,522	7,088,415	5,305	86,944
1919-20	1,549,005	5,754,485	40,001	1,283,402
1920-21	2,481,930	2,389,572	50,578	734,508
1921-22	2,438,131	9,530,690	46,822	425,755

The increasing imports of foreign sugar into Bengal and the destruction of its once large export trade in this article have sensibly told on the native refining industry. The cultivation of sugarcane and date trees is however still carried on, on a large scale.

As a result of much careful investigation by the Department of Agriculture, the cane variety yellow *tanna* from Mauritius has been recommended to cultivators and is exceedingly popular. Its expansion is only limited by the comparatively small amount of seed available. Its advantages are that it is a good drought register and a high yielder, as much as

5 tons (130 maunds) of *gur* per acre having been reaped from it without irrigation. It is also very resistant to fungus disease, and is superior in this respect to any of the very numerous other varieties (indigenous as well as foreign) which have been investigated. Another great recommendation to the cultivator is its hard exterior which acts as a protection against jackals and even against wild pig. Its juice on the other hand is less pure than that of some varieties; but it is on the whole the best cane for the conditions which exist on the high lands of Bengal. Investigations on other varieties are proceeding and some crosses of indigenous sugarcane with the wild cane (*succharum spontaneum*) made at Coimbatore by the Imperial Sugarcane Expert promise exceptionally well.

Tobacco.

35. Tobacco is grown more or less extensively for local consumption in every district in Bengal. In Rangpur, Jalpaiguri, Cooch Behar, Chittagong, the 24-Parganas, Nadia, and Jessore, it is also largely grown for export. The cultivator ordinarily takes up a small plot of land near his cow-house for the convenience of manuring the land as he always, if possible, manures his tobacco crop. Tobacco is grown in nurseries in August, September, and October and transplanted a month and a half later. The crop matures from January to March. The area under *nicotiana rustica* has greatly extended during the last few years: the plant grows late with thick and coarse leaves and as such is much in demand for blending with inferior tobacco like the *bisput* of Rangpur. The total area under tobacco cultivation in Bengal is estimated at 336,600 acres.

The districts of Rangpur and Jalpaiguri and the Native State of Cooch Behar contain the largest and most productive areas under tobacco cultivation. Rangpur grew 176,000 acres and Jalpaiguri 122,000 acres in 1921-22. Several varieties of the plant are grown in these districts. Cooch Behar tobacco is known as *kochar* tobacco; *natikan* is the most valuable leaf. The produce is distributed all over Eastern Bengal, and a fairly large quantity is exported to British Burma and elsewhere. The climate and soil of the *Tarai* districts are remarkably suited for the cultivation of tobacco, but the curing processes require improvement.

Cigar leaf tobacco was formerly unknown in Bengal but its production has engaged the attention of the Department of Agriculture and very satisfactory results have been obtained. Sumatra leaf, produced at the Government Farm at Burirhat in the Rangpur district, sold, during the war, at prices as high as Rs. 3 per lb. There is now a considerable demand for this tobacco in the Trichinopoly market and attempts are being made to introduce its cultivation on a large scale among the local cultivators in Northern Bengal. Cigars are also made at Burirhat and they now command a not inconsiderable and increasing market, to supply which, the Department of Industries propose to establish a local cigar factory.

Experiments in the Government Farm, Mymensingh, with some Virginian cigarette tobacco indicate that a good quality cigarette leaf can be grown in East Bengal. The quality of the tobacco grown in North Bengal is much liked by Indians, and tobacco has been a staple crop of those parts for at least a century past. The trade is chiefly in the hands of Maghs, who come annually to the district and despatch the tobacco to Calcutta, and Chittagong for export to Burma. The produce varies from six to twelve maunds an acre, while the price varies from Rs. 10 to Rs. 25 per maund. The Burmese Maghs, who import tobacco into their own country for the purpose of chewing and the manufacture of cheroots, select the very broad and thick-leaved plant, neither too mild nor too strong and pay high prices for it. In the districts of the 24-Parganas, Jessore, and Nadia tobacco is generally grown merely for domestic use, but in a tract of country, including the northern part of the Baraset subdivision of the 24-Parganas, the southern portions of Ranaghat in Nadia and of Bongaon in Jessore the cultivation is of more importance. The produce is exported chiefly to Calcutta. The quality and price vary considerably. The best tobacco is called *Hingli* tobacco from Hingli, a village on the Jamuna river, three or four miles west of the Gaighata thana in Jessore. This variety is grown generally over this area, and is worth from Rs. 15 to 20 per maund. Some special qualities of *Hingli*

leaf are said to fetch as much as Rs. 30 per maund. The best grade of the Motihary tobacco also fetches Rs. 30 to Rs. 40 per maund.

The imports into and exports from Bengal during the last 10 years are given below :—

Year.	Imports.	Exports.
	Tons.	Tons.
1912-13	28,861	4,934
1913-14	26,039	9,200
1914-15	24,191	8,576
1915-16	19,873	10,354
1916-17	25,510	19,520
1917-18	21,314	15,089
1918-19	22,413	15,871
1919-20	24,347	18,800
1920-21	20,536	16,909
1921-22	26,095	16,568

The imposition of enhanced duties on imported tobacco in 1910 checked imports considerably, while exports have very much increased. The local manufacture of cheap cigarettes is developing rapidly and local factories find it impossible to keep pace with the demand while *biris* have also an extensive sale. They are made of local tobacco with a leaf cover. Of the total exports from Calcutta, Burma takes over 70 per cent. The export trade with European countries is small but increasing.

36. The distribution of the silk trade in Bengal falls under the following heads :— Silk.

(1) Sea-borne export to foreign countries.

(2) Coastwise export by sea to Indian ports.

(3) Coastwise export by rail and river to other Indian provinces.

(4) Export by postal service to other Indian provinces.

(5) Local transactions inside the province.

Figures relating to items (1), (2), and (3) are noted below. With regard to item (3) it may however be stated that the figures chiefly indicate the export by goods service, whereas a considerable quantity is despatched by passenger train, as parcels which are not recorded. Of export by postal service there is no record although considerable transactions are thus carried on, especially between the district of Malda with Madras, and the Punjab. Regarding local transactions there are no means of obtaining accurate information.

(1)

Quantity and value of silk chussam *and cocoons exported from Bengal to foreign countries.*

Year.	Quantity.				Value.			
	Raw silk.	*chussam.*	Cocoons.	Total.	Raw silk.	*chussam.*	Cocoons.	Total.
	lbs.	lbs.	lbs.	lbs.	Rs.	Rs.	Rs.	Rs.
1912-13	104,587	426,573	77,147	608,307	7,78,768	3,29,079	73,725	11,81,572
1913-14	52,961	444,680	74,271	571,912	4,65,055	3,63,813	88,280	9,17,148
1914-15	28,905	182,165	69,486	280,556	2,69,560	1,32,215	76,668	4,78,443
1915-16	23,837	367,740	32,510	424,087	2,06,400	2,74,167	33,800	5,14,367
1916-17	70,467	313,978	81,550	465,995	8,18,366	3,53,023	66,125	12,37,514
1917-18	44,303	243,210	99,974	387,487	5,26,640	3,25,209	1,41,165	9,93,014
1918-19	53,024	175,783	53,250	282,057	6,52,860	2,14,740	63,452	11,31,052
1919-20	21,494	362,144	56,500	440,138	3,07,010	3,96,280	85,530	7,88,820
1920-21	16,418	247,376	82,576	346,370	3,15,360	3,91,970	1,59,359	8,66,689
1921-22	20,317	275,378	39,438	335,133	3,82,955	2,44,330	57,122	6,84,407

(2)

Coastwise export of raw silk from Bengal to Indian ports (sea-borne)

Year.	Quantity.	Value.
	lbs.	Rs.
1912-13	17,032	1,40,285
1913-14	14,180	79,090
1914-15	4,964	46,400
1915-16	1,372	21,300
1916-17	2304	23,000
1917-18	5,305	31,220
1918-19	636	3,500
1919-20	11	14,200
1920-21	2,912	37,405
1921-22	Nil	Nil

(3)

Export of Indian raw silk from Bengal to other Indian provinces by rail and river.

Year.	Quantity.
	lbs.
1912-13	27,634
1913-14	30,422
1914-15	32,062
1915-16	16,810
1916-17	17,056
1917-18	36,326
1918-19	11,152
1919-20	49,364
1920-21	41,820
1921-22	96,924

The Indian Industrial Commission held in 1916 recorded the opinion that " in the production of one pound of silk there results two-thirds to one pound of *chussam* and the exports of this material are probably the best guide as to the total quantity of silk produced in India, though they do not include the quantity used in the two silk-spinning mills in Bombay and do not make any allowance for the imperfect collection of *chussam*, which is a by-product of comparatively small value in silk reeling." To estimate, then, the Bengal production of silk, we shall be fairly safe in calculating that it is at least equal to twice the export of *chussam*. This computation is for the best quality of raw silk produced by steam filatures. But for lower grade steam filatures, not to speak of the inferior *khamru*-reeled silk, which forms the bulk of the production, the ration of *chussam* to silk may be taken as 3 to 1. The export of *chussam* for the last decade works up to an average of about 300,000 lbs. per annum. In the opinion of the Indian Industrial Commission this would mean a relative outturn of 600,000 lbs. of raw silk. It may also be stated that the actual quantity of waste produced in this province is about double the amount exported as *chussam*, because in scores of villages in Murshidabad and other silk districts, pierced and rejected cocoons are spun into coarse threads and then woven into *matka* cloths by local weavers. In the case of *chussam* again the produce of the steam filatures known as tape *chussam* are mostly exported, whereas the *chussam* produced in the *khamru* reeling is not much in demand and a good deal is locally spun into coarse yarns.

Evidence before the Indian Industrial Commission indicated that exports reached their highest level in the years 1866 to 1874, when the annual exports were 2,203,000 lbs. of which not more than 600,000 lbs. were reeled silk. Since 1878 the export trade in mulberry-fed silk began to decline owing to the increasing demand for wild tusser silk from this province. It is not

necessary to quote detailed figures, but the following table will offer a comparative idea of this change in the export trade with Great Britain:—

Year.	Mulberry-fed raw silk.	Wild silks.
	lbs.	lbs.
1906-07	210,823	167,519
1907-08	189,483	139,659
1909-10	46,873	328,651

Since the separation of Bihar and Orissa from Bengal the tusser silk trade of Bengal has been considerably reduced as the tusser-producing tracts are mostly located in Bihar. The above figures, however, go to show the gradual replacement of mulberry silk by tusser silk, owing to greater demand for the latter in the Western market. In view of the above, it can be safely stated that although there has been a considerable decrease in the export trade of raw silk during the last decade, the total production of silk has not varied to any serious extent as a greater proportion has been consumed in India. We may therefore safely estimate the production for this province to range between 1½ to 2 million pounds valued at about 30 million rupees of which (1) about 200,000 lbs. are exported to foreign countries, (2) 800,000 are used for local consumption, (3) 400,000 are coastwise exported to other provinces, and (4) 600,000 are transported to other provinces by rail and river.

In the days of the East India Company and for many years subsequently silk occupied a foremost position in the export trade of this province. The bulk of the silk trade at the present day is in the hands of Indians. In addition to a considerable number of steam filatures owned by Indians, and also by the European firm of Messrs. Anderson, Wright & Co., the reeling of *khamru* has progressed considerably in recent years. The silk reeled by this process is of far inferior quality and is largely consumed locally but a considerable quantity is also exported to other provinces by Marwari merchants.

The export trade in *korah* and other products manufactured in Western markets has decreased considerably. This may be due to the heavy protective tariff imposed by the French Government, since 1892, on manufactured silks, and also to the removal of duties on foreign manufactured goods by Great Britain in 1860. In consequence the Indian article finds a strong rival in the products of French and Italian looms. It is also not unlikely that the decrease may be due to a deterioration in the quality of the fabrics, owing to the inferior quality of the *khamru*-reeled yarn on which local manufacture is chiefly dependent. The weight of silk piece-goods, however, exported from the manufacturing centres in Murshidabad, Rajshahi, Birbhum, Burdwan, Bankura, Midnapore, and other places to the other provinces has considerably increased and approximates about 500,000 lbs. per annum. There has also been a marked increase in the manufacture of mixed fabrics of silk with cotton, tusser, and *matka* which are largely consumed both in this province and throughout India.

The handloom weaving industry in silk can be profitably developed either by the introduction of improved automatic looms or by the introduction of power-looms. The experimental demonstrations of Jacquard weaving carried on by the Department of Industries have been satisfactory in the district of Bankura and there is no reason why other districts should not follow suit. Considerable progress has been made in recent years in organising the supply of healthy and disease-free seeds to the silk districts and the work of the Government nurseries have been specially successful in improving the indigenious breed of silk worm called the *nistari* or *madrasi polu* (*Bombayx craesi*) which furnishes the summer and rainy season crops of Bengal. At present about one-fifth of the total supply of seed cocoons consists of pebrine-free seed distributed from Government nurseries and steps are being taken to expand the supply through the agency of professional cultivators under Government supervision. The improvement of the *chotopolu* breed of worms (*Bombayx fortunatus*) to supply the November crop is at present under investigation. Several important experiments in the hybridisation of indigenous races with foreign races were undertaken by French experts Messrs. Lafont and Grangeon, appointed by Government. The results have demonstrated the need of systematic improvement of the indigenous breed by selection in preference to the use of hybrid varieties, on account of the exigencies of

climatic conditions peculiar to the province. Invaluable work also was done by Mr. C. M. Hutchinson and Dr. Jameson of the Imperial Research Institute at Pusa in connection with the eradication of epidemic diseases. It is a specially noteworthy feature that a number of seed-rearing establishments have been started by the ex-students of the Government Sericultural Classes in accordance with the scheme prescribed by the Government. These students were granted a reward of Rs. 250 each after passing the school final examination and most of them are now working as seed growers under departmental supervision. There are at present 45 such ex-students on the roll. Several small joint stock companies have been established in Malda by local rearers, and the seed turned out by them under departmental supervision has proved to be of good quality. This organisation of seed-rearing by the rearers themselves has an important economic bearing on the industry as thereby the cost of production is greatly minimised and at the same time the profit is realised by the cultivators themselves. Through the joint endeavours of the Department of Sericulture and Co-operative Societies, several co-operative societies have recently been started among silk rearers, and promise to be of considerable utility.

37. The areas under tea cultivation in this Presidency lie in the Jalpaiguri and Darjeeling districts of the Rajshahi Division and the Chittagong and Chittagong Hill Tracts districts of the Chittagong Division. The number of tea gardens fell during the decade from 372 in 1911 to 326 in 1921, but the total land under tea cultivation rose from 146,756 acres in 1911 to 176,782 acres in 1921. The total outturn of the year amounted to 58,475,456 lbs. of black tea and 278,231 lbs. of green tea, as compared with 64,456,861 lbs. of black tea and 197,062 lbs. of green tea in 1911. The average yield per acre fell from 461·8 lbs. in 1911 to 332 in 1921. It will be observed from the table below that the yield of the gardens in the Jalpaiguri district was returned last year as averaging 384 lbs. per acre, in the Chittagong district 275 lbs. and in the Darjeeling district 239 lbs., as against 585 lbs., 380 lbs. and 284 lbs. per acre, respectively, in 1911.

The statement given below furnishes some important particulars of the tea industry in Bengal for the year 1921:—

District.	Number of gardens.	Average.			Outturn in lbs. of manufactured tea.		Yield lbs. per acre.
		Area not yet planted.	Area plucked during the year.	Area not plucked during the year.	Black.	Green.	
Darjeeling	168	87,080	55,942	3,063	14,080,946	...	239
Jalpaiguri	131	161,191	101,597	11,091	43,287,187	...	384
Chittagong... ...	26	25,316	4,533	470	1,100,423	273,131	275
Chittagong Hill Tracts ...	1	816	84	2	6,900	5,100	140
Total ...	326	274,403	162,156	14,626	58,475,456	278,231	332

The following statement shows the trade of Bengal in Indian tea during the past three years:—

—	Imports.			Exports.		
	1919-20.	1920-21.	1921-22.	1919-20.	1920-21.	1921-22.
	lbs.	lbs.	lbs.	lbs.	lbs.	lbs.
By rail and river ...	225,864,000	191,761,838	168,585,120	18,045,010	21,189,147	92,346,504
By sea (Foreign) (Indian merchandise).	...	...	...	341,146,920	250,233,059	284,085,922
By sea (Coastwise) (Indian merchandise).	18,056	35,425	10,564	1,704,334	2,891,864	11,699,239
Total ...	225,882,056	191,797,263	168,595,684	360,896,264	274,314,070	388,131,665

The exports from Bengal by sea to foreign countries increased from 241 million lbs. valued at Rs. 11,63,00,000 in 1911-12 to 284 million lbs. valued at Rs. 16,27,00,000 in 1921-22. The United Kingdom took nearly 246 million lbs. in 1921-22, as against 222 million lbs. in the preceding year and 184 million lbs. in 1911-12. Canada came next with 12 million lbs. and the United States took 8 million lbs. The import of foreign tea into Bengal by sea (chiefly from Java 144,000 lbs.) is insignificant and amounted in 1921-22 to 160,000 lbs., valued at Rs. 64,000.

During the war the tea industry had to face considerable difficulties owing to shortage of freight, dislocation of finance and exchange and lack of stores and machinery. The worst period of depression, however, came in the year 1920-21, when the tea exports from Bengal by sea to foreign countries fell from 341 million lbs. in 1919-20 to 250 million lbs. in 1920-21. This was mainly due to excessive accumulation of stocks in the United Kingdom, which is India's best customer, and partly to the cessation of demand from Russia. Heavy shipments at the end of 1919, increasing home stocks, and heavy production of inferior grades early in 1920 led to the collapse of the market in March 1920, although the finer qualities were not hit to nearly the same extent as the inferior grades. The effects of the slump, moreover, were aggravated by the downward movement of exchange. Prosperous times were not expected until Russia re-entered the market or demand approximated supply. The position at the beginning of the 1921 season, however, was more satisfactory, as the Indian crop had been reduced by almost 37 per cent. at the end of June 1921. This progress was maintained and a marked recovery was made in 1921-22, for which the factors mainly responsible were reduction of output, improvement of quality, and falls in the price of rice, in exchange and in ocean freights. But the industry was still seriously affected by labour troubles arising partly from economic causes and partly from the non-co-operation movement.

Opium.

38. Since the conclusion of the agreement with China in 1911, the export of Indian opium to that country has entirely ceased. The present policy of Government with regard to opium trade with countries other than China is to extend the system of direct supply and restrict auction sales as far as possible. In order to attain this end a limit has been voluntarily imposed upon the total amount of Indian opium to be exported in any one year to all consuming countries in the Far East and agreements have been concluded for the direct supply of the drug to the Governments of Hongkong, the Straits Settlements, the Netherland Indies, Siam, British North Borneo, Macao and Ceylon. A small number of chests of opium is also sold by public auctions held every month for countries that have not as yet entered into agreement with the Government of India. These chests are principally exported to Saigon.

Opium intended for export out of India is called "provision opium." Formerly there were two varieties of this opium, Bihar and Benares opium, with slight differences in composition. Since the prohibition of the export of opium to China, the manufacture of Bihar opium has been entirely abandoned and at present only Benares opium is manufactured at the Ghazipur Opium Factory from the poppy grown in the United Provinces.

Under the Devolution Rules the control of cultivation and manufacture of opium and the sale of opium for export are central subjects, and the Government of Bengal hold sales and make arrangements for export as agents and under the instructions of the Government of India.

The following statement shows the number of chests of provision opium sold during the past two years and the amount realised from the sale:—

Year.	How sold.	Chests sold.	Average price.	Total proceeds.
			Rs. A. P.	Rs.
1919-20	Sale by agreement ...	7,797	2,340 6 2	1,82,48,000
	Sale by auction ...	3,600	4,874 0 9	1,75,46,575
Total ...	.....	11,397	.....	3,57,94,575

Year.	How sold.	Chests sold.	Average price.	Total proceeds.
			Rs. A. P.	Rs.
1920-21	Sale by agreement ...	7,877	2,695 3 3	2,12,30,000
	Sale by auction ...	1,550	5,204 13 5	80,67,500
Total ...	.....	9,427	.....	2,92,97,500

The exports of opium by sea during the past two years were as follows :—

Countries to which exported.	1919-20.		1920-21.	
	Chests.	Value.	Chests.	Value.
		Rs. Lakhs.		Rs. Lakhs.
Ceylon	60	2·85	50	2·02
Straits Settlements	275	11·29	40	1·67
British Borneo	144	3·60	188	4·70
Hongkong	369	13·02	431	21·41
Mauritius and Dependencies ...	23	·98	...	...
Fiji Islands	1	·04	...	...
Persia	...	...	20	·74
Java	2,000	50·00	3·000	75·00
Siam	1,400	35·00	1·700	42·50
Indo-China	995	38·61	1·230	51·94
Macao	...	...	250	12·97
Japan	980	40·64	750	39·64
Total ...	6,247	1,96·03	7,659	2,52·59

Lac.

39. Lac (*láh*) is a cellular resinous incrustation of a deep orange colour, secreted by an insect (*tachardia lacca*) round the branches of various trees. The entire incrustation while still adhering to the twig is known as stick-lac. The twigs are gathered twice in the year in May-June and in October-November. After being dried in the shade they are sent to the manufacturers to be worked up into shell-lac or button-lac. Shell-lac is manufactured from stick-lac in the Bankura, Birbhum, Murshidabad and Malda districts. In Bankura the chief manufacturing centres are Khatra, Sonamukhi, and Gongajalghutty, though the supplies of raw lac are mainly obtained from Chota Nagpur. A small quantity of lac is grown near Khatra on the western border of Bankura district. Ilambazar is a well-known manufacturing centre in Birbhum district, though no lac is grown in the neighbourhood. Lac is now cultivated extensively in Birbhum, Murshidabad and in parts of Malda district. The chief market and manufacturing centre of these localities is Pakaur in Murshidabad district. The lac host in these areas is the *ber* (*zizyphus jujuba*), the wild edible plum tree which is found almost everywhere in India. The propagation of *ber* from seed is easy, growth in favourable localities is rapid and the tree is fit to inoculate with lac in five to ten years' time. On account of the ease with which this tree can be propagated, the good quality of its lac crop and its alternative value as a

fruit producer, it is very popular as a lac host. In Calcutta, there are two large factories; that at Cossipore is the largest factory in India using up-to-date mechanically operated plant; the other factory is near Ultadingi. The smaller mufassal factories can only manufacture shell-lac and are unable to utilize the residual lac that is left behind in the bags. This is purchased by the Cossipore factory for the manufacture of button and garnet lac by the alcohol method. The trade in lac-dye has been almost completely killed by the increasing imports of aniline dyes.

The following statement shows the export of lac of all kinds by sea from Bengal during the past ten years:—

Export by Sea.

Year.	Lac.					
	Button.	Seed.	Shell.	Stick.	Other kinds.	Total.
	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.	Cwts.
1912-13	41,461	5,396	334,662	16,404	18,236	416,159
1913-14	21,807	8,666	273,801	1,135	23,493	328,892
1914-15	25,502	10,600	307,562	1,100	19,043	363,807
1915-16	12,572	23,601	358,620	3,497	17,491	415,781
1916-17	3,072	27,789	324,151	7,459	18,230	380,701
1917-18	2,759	6,956	287,164	1,504	21,523	319,908
1918-19	3,520	5,570	215,828	4	6,569	231,491
1919-20	13,539	1,615	337,717	1,483	19,122	373,476
1920-21	10,918	488	280,199	623	16,434	308,662
1921-22	10,724	1,420	379,906	802	41,560	434,412

Safflower.

40. Safflower is the common name given to the dried petals of *carthamus tinctorius*. The florets are collected as they fade in July and August and dried in the shade or worked up with water into small balls. Safflower contains two colouring principles—safflower yellow, which is almost entirely soluble in water, and safflower red, or carthamine, which is partially soluble in water. In the manufacture of dye carthamine alone has any practical value. Safflower was at one time extensively cultivated in the Dacca division and to a certain extent in other scattered parts of Bengal, but owing to the competition of aniline dyes its cultivation is gradually decreasing. There is still a small export trade in the dye, 1,537 cwts. having been exported by sea from Bengal in 1921-22 as compared with 4,250 cwts. in 1912-13.

Saltpetre.

41. No saltpetre is manufactured in Bengal. In Calcutta and its environs there were five licensed saltpetre refineries in the year 1921-22; the quantity of refined saltpetre produced was 4,399 maunds and the quantity of salt educed in the process of refinement was 288 maunds. The quantity of *sitta* (impure salt) obtained was 244 maunds. The quantity of salt excised during the year was 939 maunds. No *sitta* was excised during the year. The saltpetre refineries in Calcutta and its environs are under the control of the Commissioner of Excise and Salt, Bengal.

Cinchona.

42. In 1861 Dr. Thomas Anderson, Superintendent of the Royal Botanic Garden, Calcutta, was deputed to Java to obtain cinchona plants for introduction into Bengal. Dr. Anderson returned towards the end of 1861 with 100 plants of *cinchona calisaya* and over 300 of other species. Some of these were given to the Cinchona Department of the Madras Government in exchange for 200 plants of *cinchona succirubra*, the red bark species. So with 100 *cinchona calisaya* plants and more than that number of other species from Java, with 200 *cinchona succirubra* plants from Ootacamund, and with a few undescribed plants that had been raised from seed sent out from Kew to the Royal Botanic Garden, Calcutta, the Bengal Cinchona

Department was started in 1861. Owing to imperfect information regarding the requirements of cinchona trees, an incomplete acquaintance on the part of Dr. Anderson with the Darjeeling district and the scarcity of suitable land, the first three years of the experiment were unfortunate, and it was not until 1864 that a permanent plantation was started on the western side of the Rungjo valley, about 12 miles south-east of Darjeeling.

By 1871 the plantation had extended eastwards down the valley, and was composed of over two million plants, mostly of red bark trees (*cinchona succirubra*), brown bark trees (*cinchona officinalis*) coming next and then yellow bark trees (*cinchona calisaya*). By 1875 there were nearly three million plants, mostly of *cinchona succirubra*. In 1875 the present factory was started and the manufacture of a non-crystalline extract from the bark of *cinchona succirubra* was begun. This extract was a yellowish powder composed of a mixture of the various alkaloids that occur in red bark and was called cinchona febrifuge. It remained until 1887 practically the sole product of the factory. The maximum amount made in any one year was over 10,000 lbs. in 1883. During the eighth and ninth decades of last century quinine was scarce and extremely expensive, costing as high as Rs. 300 per lb., while cinchona febrifuge cost from Rs. 16 to Rs. 20 per lb. The latter was therefore largely used in Government institutions and by the public instead of quinine. From about 1874 the policy of replacing on the plantation the red bark trees (*cinchona succirubra*), that are poor in quinine although rich in the other allied alkaloids, by yellow bark trees (*cinchona ledgeriana*), that are, or ought to be, rich in quinine, was initiated, and continued to be pursued for many years until, towards the end of last century, only a comparatively small number of red bark trees was left. By 1885 the original plantation, which had received the name of Mungpoo plantation from the peak standing at the junction of the Rungjo and Rayang valleys had extended from the Rungjo into the Rayang valley, and contained about 5 million trees, more than half of which were still red bark trees.

Although so far cinchona febrifuge was the sole product of the factory, efforts were continually being made to discover a process of manufacturing quinine on a commercial scale from the plantation trees. A quinologist was appointed, but he retired in 1879 leaving the problem still unsolved. His post was not held again by a chemist until 1905, so that for many years the Department lacked the services of a chemist qualified in quinological work. This both delayed the ultimate discovery of a process of quinine manufacture, and exercised indirectly a bad effect on the welfare of the plantation, for seed selection on the basis of bark analysis, with a view to keeping up the percentage yield of quinine from the yellow bark trees, had to give place to the untrustworthy method of relying on the external characters of the trees.

By 1888 the commercial process of quinine manufacture became known to the plantation officers and from that year onwards quinine began to displace cinchona febrifuge more and more, until in 1913-14 the annual sale of cinchona febrifuge had sunk to less than 2,000 lb. and of quinine had risen to over 20,000 lb. This displacement—which had been foreseen by Dr. (afterwards Sir George) King when he started replanting Mungpoo with *cinchona ledgeriana*— was primarily due to the more refined appearance of quinine and the general belief in its superior efficacy, but was helped by the continuous relative overproduction of Ledger bark in Java, which led to a steady fall in the price of quinine, until in 1909 it stood at Rs. 7 per lb.

Except during the first years of quinine manufacture, Mungpoo plantation was never able to supply enough bark to meet the ever increasing demand on the factory for quinine, and large quantities of bark had to be purchased annually to supplement the supply. Accordingly in 1899-1900 a new plantation called Munsong was started in the Dumsong Forest, east of the Tista river, and about 10 miles north-east of Kalimpong, but extensions for the first dozen years were restricted, the then policy being to supplement the plantation supply of bark by purchase in the open market. Meanwhile in Mungpoo the results of doing without a chemist since 1880, of the lack of a sound system of seed selection and of intensive cultivation and the neglect of soil

recuperation had declared themselves in the very small output of bark per acre and its miserable quality. Consequently when in 1905 with the appointment of a qualified quinologist it became possible to initiate a scheme of improvement on a sound basis of seed selection by chemical analysis of bark of parent trees, it was decided to extend the cultivation of *cinchona ledgeriana* mainly on Munsong and to reafforest the greater part of Mungpoo with selected fuel and timber trees to recuperate the soil and fit it in after years for future extensions of cinchona, leaving only small chosen areas to be planted with selected cinchona.

In 1906 the factory was enlarged from a maximum annual output capacity of 12,000 lbs. of quinine to over 50,000 lbs. As up till then there had been practically no reserve of quinine to meet emergencies, opportunity was taken during 1909—14, when prices were at their lowest, to purchase large quantities of bark from which to build up a reserve. The results of these various activities were that by the end of 1913 the cinchona area had increased from 1,700 to over 2,500 acres; the average annual bark yield per acre from less than 300 to over 400 lbs. the quinine percentage from 2·5 to 4·5; the annual harvest from less than 400,000 to nearly 700,000 lbs.; the quinine reserve from less than 3,500 to over 163,000 lbs.; the extraction efficiency of the factory from 70 to 90 per cent.; while over 2,200 acres had been reafforested on Mungpoo. During the war years the enormous demand of the armies for quinine made a tremendous drain on the department, sweeping away the greater part of the reserve and forcing the sacrifice over several years of immature trees to ensure that no failure of supply should happen. Since the war the department has practically recovered from the effects of the drain, while both the average bark yield per acre and quinine percentage have increased, the average of the latter being now over 5 per cent. In 1922 the total area under cinchona was over 3,000 acres, and the afforested area on Mungpoo was also over 3,000 acres. The afforestation work has vastly improved Mungpoo and great interest is taken in it by Forest officers. The factory products—chiefly quinine sulphate and cinchona febrifuge—are sold and distributed through the agency of the Prisons Department, from the Juvenile Jail at Alipore. There also quinine is converted into tablets for distribution and sale in the form of " treatments."

Formerly Bengal was responsible for the supply of quinine to Assam, Bihar and Orissa and the Punjab, but recently has been released from the obligation to supply the Punjab. The average annual sale of quinine for the three years, 1919-20 to 1921-22, was over 43,000 lbs. and of cinchona febrifuge over 14,000 lbs.

FORESTS.

Forests.

43. The localities covered by the State forests in the Presidency of Bengal are confined to the north, south-east and south of the Presidency. The northern area which lies in the hills of the Darjeeling district and in the Duars is composed of the forest divisions of Darjeeling, Kalimpong, Kurseong, Jalpaiguri and Buxa. The south-eastern area is composed of Chittagong, Chittagong Hill Tracts and Cox's Bazar Divisions, while the southern area comprises the Sundarbans Division.

At the close of 1921-22 the total forest area in Bengal was 10,696 square miles, of which 4,910 square miles were reserved and 1,756 square miles protected, the remaining 4,030 square miles being unclassed State forests. Of this 18 square miles of reserved forest and 54 square miles of protected forest are in charge of other departments. In 1911-12 the total area of State forests was 10,481 square miles and the increase is chiefly due to the recomputation of the areas in the Sundarbans reserved forest.

No forest surveys were carried out in Bengal by the Survey of India during the decade.

Most of the forests are now under working plans regulating their systematic management and exploitation and plans are being framed for the

remainder. The rotation is fixed and the possibilities of the valuable species of each of the forests can be calculated more or less accurately. Arrangements are made to restock artificially the areas which are worked over and to assist natural regeneration. No new working plans were completed during the last ten years, but those for Chittagong, Chittagong Hill Tracts, and Cox's Bazar are near completion. Existing plans covering 800 square miles were revised.

The area under sanctioned working plan is 3,043 square miles of reserved forest and 1,702 square miles of protected forest as compared with 3,025 square miles of reserved forest and 1,711 square miles of protected forest in 1911-12.

The forests of Bengal contain a great number of species and their composition is very varied in character.

The hill forests are divided into three classes—the semi-tropical low level forests up to the height of 4,000 feet; the temperate forests between 4,000 and 9,000 feet in elevation; the sub-alpine forests from above 9,000 and up to 12,000 feet. In the first *sal* (*sorea robusta*), the most valuable timber tree, is found in patches up to about 3,000 feet in elevation. Other valuable species are *champa* (*michelia champaca*), *lampati* (*duabanga sonneratioides*), *paccasaj* (*terminalia tomentosa*), *panisaj* (*terminalia myriocarpa*). The most striking feature of the temperate forests is the wealth of ferns, mosses, orchids, and other epiphytes, and creepers which cover the branches of the older trees. The trees, many of which grow to a great height and girth, belong to a large number of different genera. The most valuable are *safed champa* (*michelia excelsa*), the timber of which is used for indoor work; *tun* (*cedrela toona*), which is in demand for light planking and house building; *buk* (*quercus lamellosa*), which is used for heavy beams and supplies the best fuel and charcoal; *phalat* (*quercus lineata*), which yields a wood like *buk*, but slightly inferior in quality; *katus* (*castanopsis hystrix; pipli* (*bucklandia populnea*). The sub-alpine tract is characterised by a forest of silver fir (*abies webbiana*), hemlock spruce (*tsuga brunoniana*), birch (*betula utilis*), rhododendrons and maling or ringal (hill bamboos), which are in some demand for making mats.

The principal *sal* forests are in the Duars and Terai at the foot of the hills and consist of *sal* and auxiliary species, while *sissoo* (*dalbergia sissoo*) and *khair* (*acacia catechu*) are characteristic of the gravel and boulder deposits along the rivers of that part of the country.

The forests of the Chittagong and the Chittagong Hill Tracts districts are again very different. Bamboos of several kinds are plentiful and in great demand. The most important trees are *garjan* (*dipterocarpus turbinatus*), *jarul* (*lagerstroemia flos-reginæ*), *gambari* (*gmelina arborea*), *chapalis* (*artocarpus chaplasha*) and others.

A very large area of tidal forest is situated in the delta of the Ganges known as the Sundarbans. The predominating species is *sundri*; the other species principally in demand now are *gengwa* (*excœcaria agallocha*), *goran* (*ceriops candolleana*), and *baen* (*avicennia officinalis*). The most important minor products are *golpatta* (*nipa fruticans*), *hantal* (*phœnix patudosa*) and honey and wax, the first of which is very extensively used for thatching material.

The tendency more and more is to clear cut the forest in rotation and replant or resow it and extensive plantations of many of the more valuable species are being made with this end in view. Disposal of coupes by auction or tender at outright prices continued as in past years in all except the three Chittagong Divisions where timber is still sold at fixed royalty rates. Minor produce is disposed of generally under permits at fixed rates. There has been a considerable extension of departmental working for the extraction of timber in the Northern Bengal divisions during and since the war. During the latter a large quantity of sleepers was supplied to the Munition Board, and with the cessation of this demand, operations have been restricted chiefly to the extraction of timber required for the supply of sleepers to railways and for works constructed departmentally.

In the Kurseong Division an experimental portable saw mill has been installed at Sukna for the conversion of box planking and its supply to tea gardens, while a sale depôt has also been established at Siliguri. To assure a continuous supply of charcoal to the town of Darjeeling a Forest Department depôt has been opened. Besides this, *sal* and *saj* logs have been sent for disposal to Messrs. Martin and Company, Calcutta, and to Messrs. Howard Brothers, London.

An advance has also been made towards the exploitation of the Bengal forests by commercial agency. A lease of 120 square miles of the Buxa reserve has been given for 33 years to the Buxa Timber and Trading Company for the extraction of trees other than *sal* by duly controlled fellings, for the manufacture of tea chests and three-ply wood. The exploitation of bamboos for paper pulp has been initiated in the Chittagong Hill Tracts forests by Messrs. Andrew Yule and Company. *Chaulmugra* (*taraktogenos kurzii*) seeds are being collected by a contractor under a short lease. The following figures show the total outturn for the year 1921-22 as compared with 1911-12:—

	1911-12.	1921-22.
Timber (cubic feet)	6,199,250	7,754,794
Firewood (cubic feet)	15,671,259	13,466,251
Bamboos (number)	19,149,210	36,161,767
	Rs.	Rs.
Minor produce (value)	1,93,523	3,03,356

The following statement shows the revenue and expenditure of 1921-22 with those of 1911-12:—

	1911-12.	1921-22.
	Rs.	Rs.
Revenue	13,47,773	18,98,959
Expenditure—		
(*i*) on Work	3,29,254	7 10,907
(*ii*) on Establishment	3,43,162	5,77,214

The revenue derived from timber and other produce removed by Government agency as well as by consumers or purchasers increased by about 5½ lakhs since 1911-12. But on the expenditure side the increase was even greater, namely, in the cost of extraction of produce and of the staff, consequent on the general rise in wages and salaries since the war. A large part of the increased expenditure, however, is due to more money being spent on productive items, such as live-stock, tools and plant, communications and buildings, and especially on artificial regeneration, expenditure on all of which is essential if the resources of the forests are to be maintained and developed, and is all the more necessary because the exigencies of the war prevented adequate expenditure on these items in recent years. The cost of plantation alone rose from Rs. 7,820 in 1911-12 to Rs. 84,216 in 1921-22.

44. Wild elephants continue to be captured in stockades or by noosing in the districts of Darjeeling, Jalpaiguri, Chittagong, and Chittagong Hill Tracts. During the ten years ending 31st March 1922, 456 elephants and 38 calves were captured. **Elephants.**

CATTLE, ETC.

45. The cattle in Bengal are, generally speaking, light-built, small, emaciated animals. The raiyats do not ordinarily attempt to improve their animals by adopting any of the well-known means, such as liberal feeding of the young stock, or selection of the best animals for breeding. Breeding is left to chance, and is chiefly done by means of Brahmini bulls. The people prefer to castrate any male cattle of their own, because bullocks are more valuable for work, and fetch higher prices than bulls. Attempts have been made under the Court of Wards and the District Boards and by some of the more important zamindars to improve the breed of cattle by the importation of up-country bulls. English bulls have been imported by **Cattle.**

private persons, but this has been done more with a view to increase milk-production than to improve the stamp of cattle generally. Even where good bulls have been introduced, the raiyat is often too apathetic to bring his cow a distance of two or three miles. Special efforts have been made by the Department of Agriculture to educate public opinion in this respect and to introduce improved methods of cattle breeding throughout the province. Important investigations have been carried on for about ten years at the cattle breeding farm in Rangpur where two herds are maintained, one of *deshi* cattle and one of *deshi* cows crossed with Hissar bulls. The results of these experiments indicate that improvement can be effected by better methods of feeding and rearing *deshi* cattle, but that much more rapid progress is obtained if *deshi* cows are crossed with bulls of good pedigree. The policy of the department in the future will be devoted towards breeding a dual purpose animal in which the male will be a better plough bullock than the existing animal available, and the cows better milkers. In order to effect this it is necessary to work on the principle that the milking capacity is an hereditary character and that the change can, therefore, be most rapidly effected by using bulls of known milking pedigree. In pursuance of this policy, small herds of two famous milking breeds, viz., the Red Scindi and Montgomery (or Saniwal) are being established at Dacca and Chinsura farms and their performance in this climate are being closely watched. The Red Scindi herd at Dacca has already evoked favourable comment. Stud bulls of these three milking breeds are now being placed on all the Government farms and their service will be available to the cow-keepers in the neighbourhood. There is no special system of cattle-management in any part of the province. Grazing is nowhere plentiful, except in some limited areas. The raiyat does not set aside any land for grazing, nor does he store up a sufficient supply of fodder. Every inch of land grows paddy and the cattle have to be content with such scanty herbage as the roadsides, tank banks, and field boundary ridges afford. Calves are generally starved, being left to live on what they can pick up during the day, and at night are often housed in crowded, insanitary sheds. Bullocks, when in work, are fed on paddy-straw, *bhusa*, *kalai*, oil-cake or cotton seed, but at other times they have very little stall-feeding. Paddy-straw and coarse grass are the chief fodder-stuffs used, *bhusa* and oil-cake being rarely given. Cattle are put to work when they are between three and four years old. They are used for all kinds of agricultural, draught and pack work, and in places their labour is very severe. Cows, though not generally worked, are in some parts used for ploughing and light draught. The ordinary village cow yields, on an average, about 1 to 2 seers of milk a day. The best *deshi* milkers are to be found in the Burdwan district in the plains and in the Darjeeling district in the hills, but nowhere is the quantity of milk given said to exceed six seers daily. Taking Bengal as a whole, the conditions under which the ordinary cattle exist are the same all over the province. The complaint is general that the cattle are degenerating. The alleged causes are want of food and sufficient pasture, careless and promiscuous breeding from inferior bulls, starvation of calves and young stock, and castration of the best young bulls. The cattle, as they now are, will tend to deteriorate steadily. The best practical method of checking this tendency seems to lie in the progressive development and expansion of the activities of the Agricultural Department in the sphere of cattle breeding.

There is an extensive trade in bullocks and cows between the up-country districts bordering on Nepal and this province. Most of these cattle are taken to the deltaic tracts where the cultivators find it cheaper to buy new cattle than to try to keep alive the old stock. In recent years there has been a large increase in the price of stock of all kinds, due chiefly to the abnormal economic conditions for which the war is responsible. Many up-country cows are imported into Calcutta for their milk. When dry, they and their calves are exported to the Straits Settlements for food. In the Darjeeling district two distinct breeds of cattle known as "Siri" and "Nepali" are found. The Nepali is a smaller, smooth-haired breed used extensively for ploughing purposes, while the Siri is rough-coated. In appearance, the

latter are very like English cattle, except for the slight hump. They are powerful, level-framed animals, and a pair can easily drag a load of 10 maunds up the steep hill roads. A cross-breed between these two is called "Sirikutcha." In the Presidency Division, a breed of cattle is found called "Bhagalpuri." These animals are imported and are of a fair size. Cows ordinarily yield two or four seers of milk a day. A pair of cart-bullocks generally draw from eight to ten maunds, and pack-bullocks carry from one and a half to two and a half maunds. A large number of cattle die yearly from infectious diseases like rinderpest, and to a less extent from black quarter and anthrax, while foot-and-mouth disease is common, but the mortality from it is negligible. Special arrangements exist for the reporting of outbreaks and people now give information more readily than formerly. Veterinary hospitals in charge of qualified Veterinary Assistants have been established in most districts, and peripatetic assistants appointed to visit the villages attacked by outbreaks of disease. The method of treating cattle by inoculation is becoming popular, in spite of religious objections to it.

A large number of cattle in Bengal meet their death by poison every year. The criminals in most of these cases are members of the *Chamar* or *Mochi* caste, who are hereditary skinners and leather dealers and kill animals by poison for their hides. Arsenic is the poison most commonly used by these cattle poisoners. The number of samples of cattle poison annually sent to the Chemical Examiner, Bengal, has fallen to some extent since the enactment of the Indian Poisons Act (Act I of 1904), one object of which is to prevent the poisoning of cattle. This Act has recently been repealed by the new Act of 1919 (India Act XXII of 1919). Under the rules framed under the Act, every person possessing poison for sale is required to take out a license. The illicit sale of poisons has greatly decreased, but there is reason to suspect that in certain places the unlicensed sale of poisons still continues.

Buffaloes.

46. In Bengal buffaloes are employed for agricultural purposes and for other slow draught work. A very good class of animal is bred in some districts of East Bengal, especially Mymensingh, Noakhali, and Bakarganj. Buffaloes are now largely used in Calcutta for supplying milk, and cost on an average Rs. 300—350. The *deshi* she-buffalo gives about 5 seers of milk per day, and the imported up-country buffalo 10 to 12 seers. The milk is usually very rich in butter fat, and 10 seers of it yield one seer of ghee. Castrated buffaloes fit for cart work cost Rs. 75—125. A pair of draught buffaloes fit to pull a quarter-ton lorry cost not less than Rs. 500 nowadays.

Horses.

47. It may be said that neither horse nor pony breeding exists in Bengal. The indigenous *tats* are found all over the province, but they are of a very poor stamp. Pack ponies cost Rs. 50 to Rs. 75 while ponies of the type used in third class *tikka* gharries cost Rs. 250 a pair. In Darjeeling "Bhutia" ponies are found. They are coarse-bred animals, with upright shoulders, ugly heads and great bone, but sure-footed and hardy. They come from Tibet and Bhutan and cost about Rs. 300 to 350 each. Country-bred horses are brought down by dealers from the Punjab and Northern Provinces. Horses and ponies are also imported from Nepal and Burma. Calcutta is the great centre of the Australian horse trade, large numbers being imported as army remounts and for sale to private persons. Mule-breeding has been very unsuccessful in Bengal. Mules are purchased from Tibetan traders at Kalimpong during the cold season. Their average price is Rs. 300.

Goats.

48. Goats are bred almost everywhere in Bengal, and apparently with great success, by poor people as a supplementary means of livelihood. They are used for food and milk. Besides those locally bred, some are imported from the Punjab, called "Jamunaparis." They are large, fine animals, and give as much as $\frac{1}{4}$ to $\frac{1}{2}$ seer of milk a day. It is said, however, that their milk-yield is apt to diminish in this climate. Goats are sometimes imported from Tibet, and they are remarkably fine animals, with long and straight hair.

Sheep.

49. Sheep-breeding is only carried on in the drier parts of the Presidency, and to a limited extent. The breed of sheep in Bengal has, generally speaking, deteriorated. In Darjeeling the sheep are cross-bred with

the Tibetan sheep and are in consequence much finer specimens than those bred in the plains.

Poultry.

50. The poultry commonly found in Bengal consist of a motley of undersized uncared-for birds, with no qualities to recommend them either for table purposes or as egg producers. The best fowls come from the Chittagong Division, which has a large export trade with Calcutta and Burma in both eggs and poultry. The Chittagong breed is a medium-sized game bird, buff coloured, with long, clean, yellow legs, especially suited for the delta districts of the Presidency. It is to be found perfectly pure and the Agricultural Department has taken it up with a view to its preservation as a pure breed and its dissemination. English breeds of poultry are to be found here and there in the possession of planters and other Europeans who have imported them, but they are apt to deteriorate unless carefully fed and properly tended. For example, Mr. Luke of Narayanganj, a member of the Indian Poultry Association, devotes much time and attention to the improvement of poultry and his collection of Rhode Island Red fowls is producing an appreciable effect on the poultry of the neighbourhood.

FISHERIES.

Fisheries.

51. Fish is one of the staple foods of the people of Bengal, and the fishery possibilities of the province are nowhere exceeded, except perhaps by those of the United States of America. The fisheries fall into three natural classes:—

(1) Fresh water, including rivers, tanks, canals and irrigation channels, as well as rice-fields during the rains, and *jhils* or tanks which are connected with rivers during the rains.
(2) Brackish water, including estuaries and lakes.
(3) Marine.

No definite calculation of the area of potential fishery tracts has as yet been undertaken. The river surface in Bengal during the dry season is roughly estimated at 3,000 square miles. The area covered by tanks and *jhils* is probably not less than 8,500 square miles. There are also numerous canals and irrigation channels, and the vast tract of brackish water comprised in the Sundarbans, for which no figures are available. The coast line of Bengal is limited to about 500 miles.

The commonest edible fish are as follows:—

(1) *Fresh water.*—The following species of carp may be said to occur everywhere:—*Labeo rohita* (rohu), *labeo calbasu* (calbasu), *labeo bata* (bata), *cirrhina mrigal* (mrigal), and *catla buchanani* (katla). They are cultivated largely as tank fish, the fry being obtained from rivers. Large supplies of carp fry are issued annually by the Fisheries Department. It was at first thought that carp would not breed in confined waters, but the experiment has recently been tried with successful results in Midnapore and other districts of Western Bengal. Of the genus *clupea* the species *illisha* (hilsa) is exceedingly common, but it is not found in tanks. It is caught in large numbers in rivers and estuaries when, like the salmon, it ascends the rivers to spawn. The Fisheries Department has devoted a good deal of research work towards elucidating the life history of the hilsa, but no definite conclusions have as yet been reached. The department is at present pursuing investigations with regard to a small species of river fish known as *jatka*, which is suspected to be the fry of the hilsa. Many species of *siluridæ* prawns, shrimps, and crabs are also extensively caught. Numerous species of fresh water mussels, including *parreysia* and *lamellidens*, are met with, and the mussel industry is of considerable importance among Bengal fisherman. There is a large demand for the shells for the manufacture of buttons.

(2) *Estuarine.*—The principal estuarine fish are *polynemus paradiseus* (bhangon) and *lates calcarifer* (bekti), of which the latter is the most important. Various species of eels, shrimps, crabs, and prawns are also common. Rays and sharks occur extensively, but these (with the exception of two species of trygon) properly belong to the sea.

The estuarine fisheries are capable of very extensive development. They lie chiefly in the Sundarbans, an enormous tract, nearly 6,000 square miles in area, of forest, swamps, and jungle intersected by innumerable estuaries, creeks, and tidal *khals*. These valuable fishing-grounds remain to a great extent unexploited, largely on account of their distance from suitable markets and the entire absence of rapid transport facilities.

(3) *Marine.*—The marine fishing-grounds at the head of the Bay of Bengal are exceptionally well stocked and are almost wholly undeveloped. In 1908 these grounds were surveyed by the *Golden Crown*, a steam trawler specially chartered for that purpose by Government, and much valuable information was obtained. Practically inexhaustible supplies of fish were located, and these included not only an extraordinary number of edible varieties but of others which could be utilized for industrial purposes, such as the production of oil and the preparation of manure. As regards edible fish, the nearest large market is Calcutta, and the opinion arrived at was that for successful commercial exploitation, it would be necessary to employ a small fleet of fast vessels equipped with refrigerating plant. Once an adequate solution is found for this difficulty of transport, an inexhaustible supply will be made available to meet the ever-increasing demand for fish in the province.

The nets in common use are cast nets, small seine nets, drag nets, gill nets, and purse nets. Besides these, there are various kinds of bamboo structures for trapping fish. During the fine weather (November to March) large seine nets are used along the foreshore. The fishermen are generally quite ignorant of the methods of fish-curing, and large quantities of fish are regularly lost through this cause alone. Bye-products are never utilized; means of transport of fish from one place to another are generally inadequate. There is no close season for any species of fish, and inconceivable numbers of eggs of many species are destroyed yearly. Anicuts are thrown indiscriminately across rivers and streams, and no fish-ladders provided.

MINES AND QUARRIES.

52. Coal is worked in Bengal in the Raniganj coalfield. This area comprises the Asansol subdivision of the Burdwan district, a small part of the adjoining district of Birbhum and a narrow strip of the Bankura district along the river Damodar. It also extends into the neighbouring districts of Manbhum and the Sontal Parganas in the Province of Bihar and Orissa. The Raniganj field (where the first Indian coalmine was opened in 1820) held the first place as regards production of coal in India in 1905. The Jharia field in Bihar and Orissa, which was opened in 1893, went ahead of Raniganj in 1906 and it has succeeded in maintaining the lead since that date. In the year 1921 the figures were as follows:— **Coal.**

	Raniganj coal field.	Jharia coal field.
	Tons.	Tons.
Bengal	4,259,642	...
Bihar and Orissa	952,213	10,059,649

The number of coalmines in the Burdwan district rose from 154 in 1910 to 257 in 1921. The output increased from 3,731,560 tons in 1910 to 4,250,305 tons in 1921, valued at Rs. 3,28,68,916. The number of workhands employed was 45,315 in 1921.

In 1921 there were 3 coalmines in Bankura and 8 coalmines in Birbhum. A railway siding has been extended along the left bank of the Ajai river for some twelve miles and some increase in the output of coal from the Birbhum district may be expected.

The exports of coal from British India (practically all from Calcutta) from 1911 to 1920 were as follows:—

	Tons.
1911	862,177
1912	898,739
1913	759,155
1914	579,746

	Tons.
1915	753,042
1916	881,741
1917	408,117
1918	74,466
1919	508,537
1920	1,224,758

In 1920 the export of coal by sea out of India was restricted and later it was prohibited for reasons explained later, except for shipments on behalf of the Crown for the Ceylon Government Railways and for the Royal Indian Marine.

The total amount of coal raised in the Bengal fields rose from about 4,000,000 tons in 1911 to nearly 5,000,000 tons in 1920.

There was a small decline in coastwise shipments from 1,408,680 tons to 1,282,211 tons, sensational reductions of prices after the settlement of the British coal strike and the collapse of ocean freights having enabled other provinces, and particularly Bombay, to obtain a large part of their requirements from South Wales and from Africa. Pit-head prices in India meanwhile had a rising tendency and shipments were limited by the difficulty experienced in obtaining wagons to transport the coal from the collieries to the docks.

There has been a great advance in the use of electricity in the coalmines of Bengal and Bihar for haulage, pumping, lighting, and ventilation. This has lessened the cost of production, and it is expected that within a few years electricity will be in use at all important mines. Coal cutting by machinery has passed beyond the experimental stage and several types of machines are now successfully worked for increasing output.

How the coal industry—particularly that of Bengal—was affected under war and post-war conditions can be gathered from the following remarks of the Chief Inspector of Mines in India in his report for 1917:—

" It is difficult to draw any comparison between the conditions in these two coalfields in 1917, and those previously existing, as they were to such a large degree influenced, even dominated, by war requirements. All the better coal were requisitioned by Government for military purposes, direct and indirect, at fixed prices, and these coals naturally had the benefit of priority as regards transport. The result was that the demand for the non-requisitioned coals exceeded the available supply, and the prices for such coals ranged far above the prices of the requisitioned coals and were abnormally high, especially if their inferior quality is taken into consideration. It may be safely stated that by the end of September there was not a mine in the Jharia coalfield capable of being worked, which was not being worked, many of them being minute concerns, raising inferior coal, which had been closed down for years. The same remarks apply to the Mugma area of the Raniganj field. Of the twenty-five largest concerns in both fields only five showed increases and some showed considerable decreases compared with 1916."

On 31st March 1920 the Government requisition on coal was removed. Later in the year, as it was evident that the internal demand for coal exceeded the supply, exports were restricted by Government as has been already stated. There was a great shortage of labour at the collieries, and as a consequence raisings were exceptionally low. Shortage of wagons accentuated the deficiency. Another adverse factor was the decreased output per person employed, which in Bengal and Bihar fell from 117 tons in 1919 to 100 tons in 1920. The large stocks which were held at the beginning of the year were greatly reduced and at the close of the year there was very little coal of first quality in stock. Prices for all coal improved very considerably towards the end of the year, specially high rates being paid for small quantities of coal not under contract.

Iron.

53. The history of the attempts made to manufacture iron on a large scale in Bengal dates back to 1877, but failure attended all the early ventures. This was due not to shortage of ore of suitable quality but to the difficulty

of procuring adequate supplies of charcoal in consequence of the depletion of the forests in the immediate neighbourhood of the works and to other causes. The question of fuel suitable for use in blast furnaces of the European type has now been solved by the development of the Indian coalfields and the discovery that some of the deeper seams contain coal capable of furnishing metallurgical coke. It has, therefore, become possible to establish iron works on a large scale and this has been done in two instances where deposits of iron ore occur within a reasonable distance of the coalfields. These are the works of the Bengal Iron Company near Barakar in Bengal and those of the Tata Iron and Steel Company at Jamshedpur in Bihar.

The first named concern was founded in 1874 as the Barakar Iron Works. It came to an end in 1879 after producing some 13,000 tons of pig-iron. In 1882 the concern was taken over by Government and re-started in 1884. In 1889 the works were resold to the Bengal Iron and Steel Company, which, in 1919 was reconstituted as the Bengal Iron Company with an authorized capital of £2,500,000. At the southern margin of the Rajmahal trap area and in the neighbourhood of Mallarpur lateritic deposits of iron occur, which were at one time the chief source of supply for the indigenous iron industry that flourished around Birbhum in Bengal. The average yield of iron from 29 samples, collected at various localities, was only 43 per cent. The iron ores of the Raniganj coalfield in Burdwan occur in the ironstone shale group or middle division of the Damodar Series. The estimated thickness of the group is about 1,400 feet, and its outcrop extends for a distance of about 33 miles from east to west. The ore is not equally distributed throughout, but appears to be more abundant in the upper part of the group where it forms discontinuous seams or strings of nodules consisting of clay-ironstone. Bands of carbonaceous ore, or "black band" are also occasionally met with. Hughes estimated the quantity of ore available at one foot of ore in 10 or 12 feet of shale.

The Raniganj ores supplied the Barakar Iron Works for many years, but on account of the high percentage of phosphorus it was found advisable to mix them with magnetic ores brought from the Singhbhum district, whereby the phosphorus content was reduced from an average of 2·09 per cent. to 0·50 per cent. More recently, however, owing to the depletion of the stocks at the outcrop of the shales, the use of these ores has been given up, and the works supplied entirely with the Singhbhum ore. As a consequence, the output of ore in Burdwan declined from a yearly average of 72,988 tons during the five years, 1905 to 1909, to 2,243 tons in 1915, the average output during the four years, 1912 to 1915, being 5,564 tons valued at £792. Since 1915 no ore has been raised. When the Barakar Iron Works were taken over by the present company in 1889, it was completely remodelled. In 1919 it was a four-furnace plant, with a fifth furnace in course of erection. With the completion of this furnace the plant attained a capacity of 175,000 tons of pig-iron per annum. In 1917 the company commenced the manufacture of ferro-manganese from indigenous ores at the request of the Ministry of Munitions. The output of pig-iron and iron castings of the company during the year 1920 amounted to 89,650 tons and 31,775 tons, respectively.

The average amount of iron ore raised annually in India during the five years, 1906 to 1910, was 74,105 tons. In 1911 consequent upon the opening of the Tata Iron and Steel Works at Sakchi, the output rose to 366,190 tons, an amount approximately equal to the total production of the preceding five years. For this and the four following years the average annual output amounted to 429,840 tons.

Another company, known as the Indian Iron and Steel Co., was registered in March 1918 with an authorized capital of Rs. 3,00,00,000 which was subsequently increased to Rs. 3,01,50,000 (£2,010,000). The works are to be equipped with two large blast furnaces with an estimated output of 110,000 tons of pig-iron or of 73,000 tons of ferro-manganese, together with the auxiliary coke-oven and power plant, much of which is already completed.

A third company has been started in Bengal under the name of the Kirtyanand Iron and Steel Works, Ltd., at Rupnarainpur (Burdwan), for the production of steel and iron castings. The steel plant consists of two Tropenas convertors, capable of turning out steel castings up to 5 tons in weight, using the Bessemer acid process for which only pig-iron low in phosphorus and sulphur is suitable.

The quantity of pig-iron exported during the year 1921-22 was 59,497 tons, as against 48,358 tons in the preceding year. Japan took the bulk of the shipments, increasing her purchases to 58,565 tons from 47,368 tons in 1920-21.

Pottery clay.

54. The output of clay from different clay-pits in the Burdwan district during 1920 amounted to 19,911 tons, valued at Rs. 19,371. White and yellow clay is raised from these pits, as distinct from the common clay which is found throughout Bengal, and is used for the manufacture of the ordinary unglazed pottery sold in the bazars. Such clay is used for tile and earthenware pipe manufacture.

Little progress has been made in the pottery industry. The village potter continues to spin his primitive wheel in the same fashion as his forefathers did many centuries ago. Mr. McDonald, who may justly be called the pioneer of modern pottery in India, first started the manufacture of bricks on a commercial scale at Raniganj towards the middle of the last century. His pioneer attempts failed, but Messrs. Burn & Co. took up the work and developed it. Their works turn out high class terracottas, stoneware pipes and refractories by modern methods. Several factories in Bengal have been started, inspired by the success of Messrs. Burn & Co., the chief of which is the Kumardhubi Fireclay and Silica Works, where refractories, such as fire and silica bricks, are now being manufactured, which can compare favourably with the imported article. The Bengal Potteries, Ltd., who have taken over possession of the Calcutta Pottery Works, produce numerous articles of glazed pottery for industrial and domestic purposes and also specialize in the manufacture of insulators, druggists' and hospital requisites, laboratory porcelain and accessories. Kaolin, the chief raw material, is obtained from Pathurghatta on the banks of the Ganges about 200 miles from Calcutta. Other raw materials, such as felspar, quartz and limestone, are also obtained locally and compare favourably with those used in continental and English potteries.

Quarry stones and limestones.

55. Laterite is quarried extensively in the districts of Bankura and Midnapore and to a less extent in Birbhum. It is largely used for road metalling and as ballast for railway lines and in a smaller degree for building purposes. Many old temples were built of this rock. None of the building stones of Bengal are of sufficiently good quality to bear long transport. Such building stones as are used in Calcutta and elsewhere, if not of local origin, come from other provinces of India. Limestone is quarried in Midnapore, and lime is produced from nodular limestone which is found in abundance in Birbhum, but only for local use.

MANUFACTURES.

Presidency Division.

56. The large-scale industrial activities of the division are concentrated in the neighbourhood of Calcutta in what is known as the Calcutta mill-area, where the number of factories registered under the Act has risen to about 450 and the number of operatives to over 255,000. The 48 jute mills in the 24-Parganas, mostly on the river Hooghly, employ more than 166,000 workers and represent the principal industry of the division. Next in importance to jute come cotton yarn, silk, piece-goods, shellac, sugar, and paper. Other articles of minor importance are produced in great variety, the more interesting being coal-tar products, bichromates, gramophone records, bobbins, jute shoes, celluloid combs, waterproof cloth, and paper pulp. The manufacture of soap, glass articles, and cutlery goods has been successfully undertaken on modern scientific lines. The attempts which have been recently made to develop the tanning industry have not been so fortunate

and the new ventures in this line started by people who had little expert knowledge of the industry have met with reverses sufficient to cripple them for some time to come, if not to kill them altogether. Cigarette manufacturing enterprise has met with similar failure. The paddy imported from Eastern Bengal by the canal route is hulled in the 78 rice mills of Ultadingi and Chetla which employ over 3,000 people, most of whom are women. There are also 54 well equipped oil mills. These along with a number of smaller concerns produce not only edible oils for consumption in Calcutta and the rest of Bengal, but supply castor, linseed, cocoanut, and other commercial oils to Indian and foreign markets. The more ambitious engineering firms in and around Calcutta now produce fans, switches, regulators and other electrical accessories, kerosene stoves, machine tools, match-making machines and implements for tea, textile, and agricultural industries. Industrialists of limited resources have taken up the manufacture of various useful articles. The pencils and pen-holders, rain-water pipes, buckets, iron safes, steel trunks, locks, suit-case, umbrella, etc., turned out by them may be said to be quite suitable for Indian markets and have perceptibly affected imports from foreign countries. Of the products of cottage industries, the fine cotton fabrics of Santipur, Kushtia, and Sidhipasa, the silk piece-goods of Murshidabad and Baluchar, and the woollen blankets of Jangipur are much sought after. The greater use of fly-shuttle looms is a noticeable feature in several cotton weaving centres, and recent propaganda advocating the boycott of foreign goods and the exclusive use of indigenous products have given an impetus to the industry. Brass and bell-metal utensils are manufactured chiefly in the Basirhat subdivision, Nabadwip, and Meherpur, but the demand for these is slowly declining with the increased use of porcelain, enamel, and aluminium substitutes. Among more artistic products, the industry of ivory carving continues to support a small colony of workers in Berhampore, clay models and figures are manufactured in considerable quantities at Krishnagar in Nadia district, while Barasat and Murshidabad are famous for embroidery work which finds a ready sale among Europeans and is exported to Europe and Australia. *Gur*, from sugar-cane, is made in several parts of Nadia, but the manufacture by primitive methods of sugar and molasses from date *gur* which formerly was pursued on a considerable scale at Kotchandpur and Khardah is gradually declining before the competition of imported sugar. A small colony of Punjabi immigrants who have settled at Tiljala, south-east of Calcutta, produce most of the sole leather used in Bengal, but leave the manufacture of chrome and patent leather to the Chinese tanners in Calcutta, who have brought to the enterprise craftsmanship and skill equal to that already displayed by their compatriots in high-grade carpentry and cabinet-making. Basket-making, mat-making, the weaving of fishing nets and boat-building are the natural industries of the estuarine tracts of Jessore and Khulna.

57. There are two distinct industrial areas in the division. The iron, steel, and metallurgical industries, and the subsidiary industries dependent on them as also a paper mill and the biggest pottery works in the province have naturally been established in close proximity to the coal-fields of Raniganj and Jharia, while the shipbuilding yards, engineering workshops, the jute and cotton mills, and the oil, flour, and rope mills are all on the banks of the Hooghly near Calcutta. In 1921, the total output of Bengal coal mines reached nearly 4¼ million tons. Mechanical coal-cutters have been installed in several mines. The recently-built Kirtyanand Iron & Steel Works at Rupnarainpur have commenced iron and steel castings on a limited scale. The old Bengal Iron Company at Kulti obtain their iron ore from Singhbhum and Keonjhar, coke from Jharia and Ramnagar, lime-stone from Sutna and Bisra, all from outside Bengal. Their daily production is about 450 tons of pig iron which is utilized in making railway sleepers and chairs. The works of the Indian Iron & Steel Company at Hirapur near Asansol are fast nearing completion, and are equipped to produce 600 tons of pig daily. The raw materials will all come from Bihar and Orissa. It is intended to utilize the iron and steel produce in these works in Messrs. Burn and Company's Indian Standard Wagon Works at Hirapur and in the textile works of Messrs. Fairbairn, Lawson Combe, Barbour (India), Ltd., at Panuria near

Burdwan Division.

Asansol. The railway workshops of Lillooah and Khargpur have steadily developed and are engaged in turning out various railway requirements. The large engineering works, as also the smaller foundries in Howrah, produce various articles for household, field, and factory use. Among these may be noted cast-iron rice bowls and weights, oil-*ghanis* and sugar-cane crushing mills. A mill for extracting oil by the solvent process has been built in Konnagar and the number of ordinary *ghani* oil mills has increased not only in Howrah but in the districts of Birbhum, Bankura, Burdwan, Hooghly, and Midnapore. Among other manufactures of importance produced in the division may be mentioned Waldies' chemicals, Shalimar paint and varnish, Ghoosury rope, aluminium hollow-ware, printing ink, lime, tannin extract, bone-meal, cigarettes, refined kaolin, and mica products. There are 48 jute mills in the districts of Hooghly and Howrah with a labour strength of a 114,000 and 8 cotton mills. The chief centres of hand-loom weaving are Chandernagore and the Serampore subdivision where fine fabrics are made. For coarse cloth several places in Midnapore, Howrah, and Burdwan districts are famous. Attempts to organize the weavers in Bankura district into co-operative societies are said to have produced satisfactory results. A well-known Calcutta house has organized the *chikan* workers of Chinsura and markets their products. Silk and *taṣar* weaving is carried on in Midnapore, Bankura, and Birbhum districts, and in Burdwan on a limited scale. Cutlery is manufactured at Sashpur and Kanchannagar and the workers are alive to the advantages to be gained by the introduction of improved processes and machines. Shellac is produced chiefly in Bankura district, and the lac toys of Birbhum are well-known. Brass and bell-metal utensils are manufactured on an extensive scale in Bankura and Midnapore districts.

Dacca Division.

58. Dacca is well-known for its ornamental *saris* made by hand-looms, and their reputation has travelled beyond the borders of Bengal. *Kasida* cloth, *i.e.*, cotton muslin embroidered with *muga* silk, was formerly exported to Turkey, but the war destroyed the trade and great difficulty is now being experienced in disposing of the stock. Fine cotton fabrics are produced in the Tangail, and coarse fabrics in the Goalundo subdivisions and various other places. Dacca is also the birth-place of several other home industries. The conch-shell industry of Dacca has a high reputation for the excellence of its products. The crude dhobi soaps used by the washermen of the division are produced locally, while mother-of-pearl buttons and horn-combs are made by simple hand tools. Improvements are being introduced into these two industries as the competition of better quality articles is being felt more and more keenly. A firm has been established in Dacca to manufacture oil-cloth, and a small condensed milk factory has been started in Faridpur district. The extensive cultivation of jute in the division has led to the establishment of jute presses, 34 of which are working in the districts of Dacca, Mymensingh, and Faridpur, and provide employment for about 8,400 workers. Narayanganj and Madaripur are the chief centres of the jute-baling industry. Oils mills have been established in Dacca and Bakarganj, while match factories on a small scale have been started in several places. Among other products of importance, the cutlery of Bakarganj and the bell-metal wares of Kagmari (Mymensingh) and the *gur* of Faridpur may be mentioned. Gunny cloth is woven on hand-looms by *kapalis* in Mymensingh and Bakarganj districts.

Rajshahi Division.

59. The chief articles of manufacture are tea, *ganja*, and silk. Tea is manufactured in Jalpaiguri where the industry has recovered to a large extent from the slump which followed the collapse of the Russian market. *Ganja* is grown in the Naogaon subdivision and its production and distribution have been greatly facilitated by the formation of a co-operative society among the cultivators. The silk industry in all its stages, from the rearing of the cocoons to the weaving of silk cloth, is carried on in the districts of Rajshahi and Malda, but more raw silk is exported either in the cocoon or the reeled silk stage than is used by local weavers. Cotton weaving is carried on extensively in Pabna with the hand-loom and the cloth is said to be in great demand. Durries and

coarse cloth are woven in parts of Dinajpur, Jalpaiguri, and Rangpur. Brass and bell-metal articles are manufactured in quantities just sufficient to meet local demands. Reed mats are made in Dinajpur and Pabna for local use. Attempts have recently been made with indifferent success to exploit the timber resources of the Buxa forests, to develop the cigar industry among the tobacco fields of Rangpur and to establish a tannery in Bogra, while the Hindusthan Fruit Preserving Company in Malda are pioneers in the canning industry.

Chittagong Division.

60. The manufacture of coarse cotton cloth and of bamboo and cane baskets is common throughout the division. The Maghs of Cox's Bazar and the Bundarban subdivision of the Hill Tracts make silk and cotton *lungis* for their own use, while the shirtings and coatings of Mainamati near Comilla are extensively sold in the local markets and are exported to the neighbouring districts and to Calcutta. Fine fabrics are produced in Brahmanbaria. The cotton crop of the Hill Tracts is ginned in Chittagong. Rope-spinning and gunny-weaving is carried on in Chittagong and Tippera. The brass utensils of Brahmanbaria find a market in Dacca and other parts of Eastern Bengal. Among articles of minor importance produced throughout the division, *hookas*, sola hats, cane bags and *sitalpati* mats may be mentioned. An interesting but only partially successful attempt was made in Comilla to introduce match-making as a cottage industry. The simple machines employed are constructed by a local firm. Tea, molasses, and cotton cloth are the only articles of manufacture in the Hill Tracts. Dugouts are made and exported in large numbers for shaping and finishing to Chittagong where boat-building is an ancient industry among the sea-faring population.

POLITICAL.

Historical Summary of the Civil Administration of Bengal.

First English settlement in Bengal.

61. The English first came to Bengal in 1633, when Mr. Ralph Cartwright obtained a *parwana* for free trade in Orissa from the Nawab, and accordingly established factories at Balasore and Hariharpur, now known as Jagatsinghapur. The latter factory was soon abandoned. In 1650 the English established themselves at Hooghly. The trade in the Bay of Bengal was at first regarded as a mere extension of the coast trade. Hence the factories in the Bay were subordinate, with those of the coast, first to Bantam, then to Surat, and lastly to Fort St. George, when it became an independent agency. The first independent Governor of the English in Bengal was William (afterwards Sir William) Hedges, appointed in 1682, but recalled in 1684, when the Bay was again made subordinate to Fort St. George.

The English on several occasions obtained grants for free trade from Shah Jahan and Aurangzeb and from the subordinate Governors of Bengal. The story that the first of these grants was obtained through the influence of a Surgeon, Gabriel Boughton, is not supported by historical evidence, and is probably incorrect. It was, however, found that the grants and orders of the Indian Government were no sufficient protection to the trade.

Calcutta founded, 1690.

62. In 1686 the English Company broke with the Indian Government, and ordered their agents to seize some place of defence in Bengal, and make it the centre of their trade. After several years of fighting and debate, at the instance of Job Charnock, the new centre of trade was fixed at Calcutta, where the English made their final settlement on the 24th August 1690. In 1696, in consequence of the disturbances caused by the rebellion of Subha Singha, the English were permitted by the local Government to fortify their settlement at Calcutta, and at the end of the year the building of the fort was begun by the Agent, Charles Eyre. In 1698 the Prince Azim-ush-shan,

grandson of Aurangzeb and Subadar of Bengal, Bihar and Orissa, allowed the Company's Agent to purchase the talukdar's right to the three villages of Calcutta, Sutanuti and Govindpur.

Governor of Fort William in Bengal.

63. In 1700 the fort was enlarged and called Fort William, Bengal was made an independent presidency, and Sir Charles Eyre was appointed first President and Governor of Fort William in Bengal. He was succeeded by John Beard, who vigorously carried on the building of the fort. The British flag was hoisted in Calcutta on the 6th October 1703. From 1704 to 1710 Calcutta was under the " Rotation Government," under a Council over which a different member presided in alternate weeks. But in 1710 the line of Presidents and Governors was restored in the person of Captain Anthony Wellden, and has since continued unbroken:

In 1717 the United Company obtained a royal grant from the Emperor Farrukhsiyar, granting them, besides privileges of trade, permission to purchase the talukdari of 38 additional villages adjacent, subject to an annual revenue of Rs. 8,121, but the opposition of Murshid Quli Khan prevented them from actually acquiring the villages. Nevertheless by recognizing and legalising their claims the royal grant benefited the English, and the *Nawab*, by refusing to allow them to occupy the 38 villages, furnished them with a standing legitimate ground of complaint which they urged with effect under Clive.

24-Parganas. 1757.

64. The treaty with Siraj-ud-daula in February 1757, after the recapture of Calcutta, by the fourth article of which the Company were " allowed to fortify Calcutta in such manner as they might esteem proper, " and by the fifth of which it was stipulated " that *siccas* be coined at Alinagar (Calcutta) in the same manner as at Murshidabad," with a general promise of amity, may be considered to have first established the Company's territorial character in Bengal. On the 4th June 1757, moreover, by a treaty entered into with Jafar Ali Khan, this agreement was confirmed, and the Company's zamindari extended six hundred yards without the ditch of Calcutta, and over the 24-Parganas south of Calcutta as far as Calpi.

Burdwan, Midnapore and Chittagong, 1760.

65. In the treaty concluded with the Nawab Mir Muhammad Kasim Ali Khan, on the 27th September 1760, it was agreed that Kasim should succeed as Nawab of the Subahdari of Bengal, Bihar and Orissa; that the English army should be ready to assist him in the management of affairs, and that the lands of the *chaklas* (districts) of Burdwan, Midnapore, and Chittagong should be assigned for all the Company's charges. A complete and full cession of these three districts was then effected and confirmed again by Jafar Ali Khan in the treaty for his reinstatement, dated 10th July 1763.

Grant of dewani, August 12th, 1765.

66. After the expulsion of the Nawab Kasim Ali Khan and the decisive battle of Buxar, the Dewani of Bengal, Bihar and Orissa* was conferred in perpetuity on the East India Company by the Emperor Shah Alam, under a royal grant, dated the 12th August 1765. As the Dewani included the administration of civil justice as well as the collection of the revenue, the grant constituted the English the virtual rulers of the three provinces. The *Nawab* of Bengal recognized this grant under an agreement, dated 30th September in the same year, and consented to accept a fixed stipend for the maintenance of himself and his household.

In 1766 Lord Clive, then President of the Council of Fort William, took his place as Dewan, and in concert with the Nawab, who sat as Nazim, opened the *puneah*, or ceremonial of commencing the annual collections in durbar held at Motijhil, near Murshidabad.

But though the civil and military power of the country and the resources for maintaining it were now in the hands of the East India Company, it was not thought prudent to vest the immediate management of the revenue, or the

* The Orissa of the last century included only the district of Midnapore and a part of Hooghly, or more accurately the tract of country lying between the rivers Subarnarekha and Rupnarayan. Orissa Proper was conquered and annexed from the Mahrattas by Lord Wellesley in 1803.

administration of justice, in the European servants. There was a resident at this time at the Nawab's court who inspected the management of the Naib Dewan, and a chief who superintended the collections of the province of Bihar under the immediate management of a distinguished native, Shitab Roy; but, with these exceptions, there were no other covenanted servants of the Company in the interior, except those who were administering the zamindari lands of Calcutta and the 24-Parganas, and the ceded districts of Burdwan, Midnapore and Chittagong, which had again been confirmed to the Company in perpetuity by a royal grant.

Supervisors, 1769.

67. In 1769 Supervisors were appointed by Mr. Verelst, with powers of superintending the native officers employed in collecting the revenue or administering justice in different parts of the country; and councils, with superior authority, were in 1770 established at Murshidabad and Patna. The Supervisors were furnished with detailed instructions for obtaining an account of the provinces; the state produce and capacity of the lands; the account of the revenues, the cesses, or arbitrary taxes and of all demands whatsoever which are made on the cultivators; the manner of collecting them, and the gradual rise of every new impost; the regulation of commerce and the administration of justice. The information elicited by these enquiries showed the internal government to be in a state of profound disorder, and the people to be suffering great oppression. Nevertheless seven years elapsed from the acquisition of the Dewani before the Government deemed itself competent to remedy these defects. It was not till 1772 that the Court of Directors resolved to "stand forth as Dewan, and by the agency of the Company's servants to take upon themselves the entire care and management of the revenue."

Mr. Hastings' Regulations, 1772.

68. By the adoption of a plan then proposed by Mr. Hastings and four Members of his Council, the institutions of the internal government were established as follows:—

Supervisors designated Collectors.

In the Revenue Department, at the Presidency, a Board of Revenue was appointed, consisting of the President and members of Council, with an Accountant-General and assistants. The exchequer and treasury were removed from Murshidabad to Calcutta. In respect to the provinces, it was resolved that the Supervisors should now be designated Collectors, with each of whom an Indian officer, chosen by the Board and styled Dewan, was joined in the superintendence of the revenues.

Collectors preside over Civil and Revenue Courts.

69. Under the regulations framed for the Judicial Department, two courts were instituted for each provincial Division or Collectorship—one by the name of Dewani or Civil Court, for the cognizance of civil causes; the other named Faujdari or Criminal Court, for the trial of crimes and misdemeanours. The Collector presided over the Civil Court, attended by the provincial Indian Dewan and other officers.

Indian Criminal Courts.

In the Criminal Court the Kazi and Mufti of the district and two Maulvis sat to expound the Muhammadan law, and to determine how far delinquents were guilty of its violation; but it was the Collector's duty to attend to the proceedings of this Court so far as to see that all necessary witnesses were summoned and examined, and that the decision passed was fair and impartial. The Collector had no further concern in the criminal administration. Appeals from these Courts were allowed to two superior Courts established at the chief seat of Government,—one under the denomination of Dewani Sadar Adalat, or Chief Court of Civil Judicature; the other, the Nizamat Sadar Adalat, or Chief Court of Criminal Justice.

Chief or Sadar Courts.

70. The Chief Civil Court consisted of the President and Members of Council, assisted by Indian officers. In the Chief Criminal Court a Chief Officer of Justice presided, appointed by the Nazim, and assisted by the head Kazi and Mufti and three eminent Maulvis. Over this latter Court, however, a control was vested in the President and Council, similar to that exercised by the Collectors in the provinces.

A short experience, however, showed that the superintendence over criminal justice, when exercised by the President, involved too heavy duties, and in October 1775 the Court of Nizamat Adalat was moved back to

Murshidabad and placed under the control of the well-known Muhammad Reza Khan, who was appointed Naib Nazim.

Collectors withdrawn.

71. In the meantime (1774) the European Collectors were also recalled from the provinces, and Indian Amils were appointed in their stead. A new system of police was introduced. Indian officers, styled faujdars, were appointed to the fourteen districts or local jurisdictions into which Bengal was divided.

Provincial Revenue Councils, established 1774.

72. The superintendence of the collection of the revenue, removed from the Collectors, was vested in six Provincial Councils, which were established at Calcutta, Burdwan, Dacca, Murshidabad, Dinajpur and Patna. The administration of civil justice was, on the same principle, transferred to the Amils.

Provincial Civil Judges established independent of Revenue Courts, 1780.

73. Vital changes were, however, speedily effected in these arrangements. The constitution of the Dewani Adalat was transformed by the establishment in 1780, in each of the six great Provincial Divisions, of a Court of Justice distinct from, and independent of, the Revenue Council. Over this Court a covenanted servant presided, whose jurisdiction extended over all civil and rent cases. These six divisions were, in their civil aspect, augmented shortly to eighteen, in consequence of the inconvenience experienced from the too extensive jurisdiction of the six before instituted. The Judges of these Courts were wholly unconnected with the Revenue Department, except in the four frontier districts of Chittra (or Hazaribagh), Bhagalpur, Islambad (or Chittagong) and Rangpur, where, for local reasons the offices of Judge, Magistrate and Collector were vested in the same person, but with a provision that the judicial authority should be considered distinct from, and independent of, revenue functions.

Provincial Revenue Councils abolished: Collectorships reinstituted, 1781.

74. Simultaneously with the extension of the Civil Courts the Provincial Councils were abolished, and all the revenue affairs of the provinces brought down gradually to the Presidency, there to be administered by five of the most able and experienced of the Civil Servants, under the designation of a "Committee of Revenue." One President of each Provincial Council was, however, to remain officiating as Collector under the Committee of Revenue until further orders, as likewise were the four Judge-Magistrate-Collectors, who had been separately sanctioned in the frontier and least civilized districts.

Civil Judges vested with Executive Magisterial powers, 1781.

75. The establishment of faujdars and thanadars, introduced in 1774, was also abolished in 1781, and the eighteen Civil Judges "were invested with the power, as Magistrates, of apprehending dacoits and persons charged with the commission of any crime or acts of violence within their respective jurisdictions." They were not, however, to try or punish such persons, but "were to send them immediately to the daroga of the nearest Faujdari Court, with a charge in writing setting forth the grounds on which they had been apprehended." They had merely powers to act as an executive police, leaving the trial and the infliction of punishment to the native Muhammadan officials. Provision was at the same time made for cases where, by special permission of the Governor-General and Council, "certain zamindars might be invested with such part of the police jurisdiction as they formerly exercised under the ancient Mughal Government." In such cases the European Judge, in his capacity of Magistrate, the daroga of the Criminal Court and the zamindar, were to exercise a concurrent authority for the prevention of crimes.

Union of the offices of Collector, Civil Judge and Magistrate, 1786.

76. Under the instructions which Lord Cornwallis brought with him from England in 1786, the revenue and judicial institutions of the country were again modified. The designation of the Committee of Revenue was changed to that of Board of Revenue. Its authority and functions were continued. The European Civil Servants superintending the several districts into which the country was divided were each of them vested with the united powers of Collector, Civil Judge and Magistrate. In proposing this union of different authorities in the same person, the Court of Directors were influenced by the consideration of its having "a tendency to simplicity, energy, justice and economy." They placed on record that they were actuated

by the necessity of accommodating "their views and interests to the subsisting manners and usages of the people, rather than by any abstract theories drawn from other countries, or applicable to a different state of things."

It was only in the administration of justice in the *cities* of Murshidabad, Dacca and Patna that District Courts were established, superintended by a Judge and Magistrate.

Function of a criminal Sessions Court still discharged by Indian Officers.

77. The administration of criminal justice remained, however, vested in the Naib Nazim, or Deputy of the Nawab, to whose Courts, which were superintended by the Muhammadan Law officers, almost all criminals apprehended by the Magistrate were referred for trial. The Collector, in his capacity of Magistrate, could only decide upon the most petty charges. But towards the end of 1790 a very important change took place in this arrangement. It was declared that, with a view "to ensure a prompt and impartial administration of the criminal law, and in order that all ranks of people might enjoy security of person and property, the Governor-General in Council has resolved to accept the superintendence of the administration of criminal justice throughout the provinces." In conformity with this Resolution the Nizamat Adalat, or Chief Criminal Court of Justice, was again removed from Murshidabad to Calcutta, to consist of the Governor-General and Members of the Supreme Council, assisted by the head Indian Law officers. Four Courts of Circuit, superintended respectively by covenanted servants of the Company, each with their Muhammadan Law officers, were in 1793 established for the trial of cases not punishable by the Magistrates.

Criminal administration assumed by the British.

Separation of District Offices; Civil Judge and Magistrate remain united; Collector separated, 1793.

78. Lord Cornwallis, moreover, differing from the Court of Directors, and deeming it incompatible with the principles of his system that Revenue officers should decide on suits the cause of which, originating in their own department, might render them not wholly disinterested in the decision, annulled (1793) the judicial power of all officers of the revenue, and transferred the cognizance of all matters, wherein the Government might be concerned, to the Courts of Dewani Adalat. A new Court of Civil Judicature was established in every district. The new Judge was a European covenanted servant, of higher official rank than the Collector,* uniting in his person the powers of Magistrate as well as of Civil Judge, and controlling the police within the limits of his division. This arrangement long continued, one officer in each district being Judge and Magistrate, and another Collector.

To the Courts of Justice a Registrar and one or more assistants were appointed from the junior branch of the European Covenanted Service. The assistants were assistants to the Judge and Magistrate in both capacities. As assistants to the Magistrate they could be empowered by him to decide on cases to the same extent that the Magistrate himself was authorised under the Regulations of 1793. The Registrar was empowered to try civil causes not exceeding 200 rupees.

Indian Civil Judges, Munsifs, 1793.

79. At the same time a Regulation was enacted authorising the appointment of Indian Commissioners to hear and decide, in the first instance, on suits of personal property not exceeding the value of 50 rupees. These were of three descriptions, *viz.*, *Amins*, or referees; *Salisan*, or arbitrators; and *Munsifs*, or Indian justices. The referees and arbitrators were usually Kazis appointed by virtue of their offices; the Munsifs were more carefully selected. They were not paid by fixed salary, but by commission on the amount of causes investigated by them. Appeals from their decision lay to the Civil Judge.

Four Provincial Courts of Circuit and Appeal.

80. In order to ensure the hearing of appeals from the Judge, which had previously lain direct to the Governor-General at Calcutta, Lord Cornwallis established, by Regulation V of 1793, four Provincial Courts of Appeal. One was instituted in the vicinity of Calcutta, one at the city of Patna, another at Dacca and the fourth at Murshidabad, each Court being

* The existing Collectors were, in point of fact, appointed Judges, while their head assistants were appointed to the different Collectorates, for which, said the Government Minute, "they will be found sufficiently qualified."

superintended by three Covenanted Civilian Judges. To these Courts a Registrar and one or more covenanted assistants were attached. An appeal lay from them to the Sadar Dewani Adalat, or Governor-General and Council in Calcutta, when the suit exceeded Rs. 5,000 in extent.

These Civil Courts were identical with the Courts of Circuit that were simultaneously appointed, and of which notice has been taken above. The same officers, European and Indian, were attached to the Courts alike in their civil and criminal jurisdictions.

The territorial jurisdiction of these Courts as laid down by Regulation V of 1793 was as follows:—

(1) CALCUTTA DIVISION—

24-Parganas, Burdwan, Jungle Mahals, Midnapore, including the salt districts to the west of the Hooghly river, Jessore, Nadia and the zillas of Calcutta, Serampore and Birbhum.

(2) DACCA PROVINCE—

Dacca, Mymensingh, Sylhet, Tippera, Chittagong and Dacca—Jellalpur.*

(3) MURSHIDABAD DIVISION—

Murshidabad, Bhagalpur, Purnea, Dinajpur, Rangpur, Rajshahi, and the districts under the superintendence of the Commissioner at Cooch Behar which are not included in the independent territories of the Raja of Cooch Behar.

(4) PATNA DIVISION—

Patna, Ramghur, and the zillas of Bihar Proper, Tirhut, Saran and Shahabad.

Changes in the constitution of the Sadar Court. Regulation II, 1801.

81. The Governor-General and Council, who were at this period discharging the duties of both the Sadar Dewani and Sadar Nizamat Adalat, soon found that more of their time was occupied in these functions than could conveniently be spared. Lord Wellesley, moreover, placed it on record that he deemed "it essential to the impartial, prompt and efficient administration of justice, and to the permanent security of the persons and properties of the Indian inhabitants of these provinces, that the Governor-General in Council, exercising the supreme legislative and executive authority of the State, should administer judicial functions of Government by the means of courts of justice distinct from the legislative and executive authority." It was accordingly determined that the Government should relinquish the chief civil and criminal jurisdiction, and place it in the hands of a court of justice, over which were to preside three Judges, the Chief Judge being a member of the Supreme Council and the other two selected members of the Covenanted Civil Service.

The Sadar Court remained as the Court of final appeal in this Presidency without any radical modifications until it was united with the Supreme Court in 1862, and both together were amalgamated into the present High Court. The Sadar Court was latterly composed of five or six Covenanted Civilians more or less, as might be necessary.

The Supreme Court, 1774.

82. The Supreme Court, which was an entirely separate institution, was governed by the English law and administered by three Judges, Barristers-at-Law appointed by the Crown, of whom the chief was styled Chief Justice. The Supreme Court was established by the Letters Patent which the King was empowered in the Regulating Act to grant, and dated 26th March 1774. It had full local jurisdiction in Calcutta, and also personal jurisdiction over all persons in the employment of the Company, including zamindars, revenue farmers and contractors in the mufassal. This extensive power led to confusion and injustice, and a new Act was passed in 1781, defining and limiting

* The districts of Dacca-Jellalpur and of the city of Dacca were abolished by Regulation V of 1833, and formed into the single district of Dacca. Jellalpur is the name of a pargana in the Faridpur district. The original Dacca-Jellalpur included that zilla, and the head-quarters of the district were in 1812 located at Faridpur. In 1833 the independent Joint-Magistracy and Deputy Collectorate at Faridpur was established, and was declared a full Magistracy and Collectorate on the reorganization of 1859.

the powers of the Crown Court. In general terms it may be said that till its abolition the jurisdiction of the Supreme Court was confined to the limits of the city of Calcutta, between the Hooghly and the Mahratta Ditch, and to the determination of all serious criminal cases in which European British subjects were accused and committed for trial. It was strictly interdicted by law from interfering in matters of revenue.

The High Court established, 1862.

83. On the 14th May 1862 the High Court of Judicature in Bengal was established by Letters Patent. The Sadar and Supreme Courts were abolished at the same time by Act 24 and 25 Vict., Cap. 104. The combined powers and authorities of the abolished Courts, and their jurisdiction both over the provinces of Bengal, and Bihar and Orissa and the Presidency town, were vested in the High Court. The maximum number of Judges to be appointed to the High Court was then fixed at fifteen. On the 1st January 1866 fresh Letters Patent were issued, and further provision was made respecting the jurisdiction of the Court. In 1911 Act 24 and 25 Vict., Cap. 104, was amended by Act 1 and 2, Geo. 5. Cap. 18. This Act increased the maximum number of Judges from fifteen to twenty, and authorised the Governor-General in Council to appoint from time to time additional Judges for a period not exceeding two years.

Changes in the constitution of the Board of Revenue: Board of Commissioners in the Upper Provinces, 1807.

84. In 1795 laws were published for the newly-acquired province of Benares. In 1805 the laws and regulations that had been established in the ceded and conquered provinces on the Upper Ganges* were codified. In 1807 (Regulation X) a commission was constituted, consisting of two members, for the superintendence of the settlement of these provinces, and for the general control of the Collectors in the discharge of their several public duties. These Commissioners were vested in those provinces with all the authority that had hitherto been exercised by the Board of Revenue of Calcutta. By Regulation I of 1809 this Board of Commissioners in the Upper Provinces was declared permanent. At the same time all the powers that up to this period had been exercised by the Calcutta Sadar Board of Revenue in the province of Benares were transferred to the Board of Commissioners.

Board of Commissioners in Bihar and Benares, 1817.

85. In 1816 (Regulation I) a separate Commissioner was appointed for the superintendence of the revenues of the province of Benares, and that part of the province of Bihar which was comprised in the zillas of Bihar, Shahabad, Saran and Tirhut. He was vested with all the authority that had previously been exercised in these provinces by the Board of Revenue and Board of Commissioners, respectively. By Regulation I of 1817 the authority of the Bihar-Benares Commissioner was extended to the districts of Ramghur, Bhagalpur and Purnea. In the same year it was found advisable to appoint two Commissioners in place of the single officer. "The Board of Commissioners in Bihar and Benares" was accordingly established, and as a special case the general revenues of Dinajpur and Rangpur were also entrusted to this Board. By Regulation I of 1819 the management of the revenues of Dinajpur and Rangpur was replaced under the Calcutta Board of Revenue. The powers of a single Member of the Calcutta Board of Revenue to exercise any and all the powers of Board collectively, and the full powers of a commission of the Board into the interior, were also established under Regulation XIII of 1811. The powers thus granted were, in 1871, acted upon by Government, and each Member of the Board was empowered to exercise the full powers of the Board of Revenue.

Board of Revenue for the Lower Provinces, 1822.

86. By Regulation III of 1822 considerable changes were effected in these arrangements: (1) the duties, powers and authority of the Board of Commissioners in Bihar and Benares within the districts of Bhagalpur and Purnea were vested again in the Calcutta Board of Revenue, which continued to exercise its powers in the districts subordinate to its authority, and

* The Province of Benares was added to the Company's dominions in 1795. By a treaty, bearing date the 20th November 1801, the Nawab Vizier of Oudh ceded the valuable districts of that province which were officially known as the ceded districts in Oudh. The conquered provinces of the Regulations were conquered from the Marhatta Chieftains, Scindia, the Berar Rajah and others. These provinces comprehend the principal part of the Doab, or tract of country between the rivers Ganges and Jumna; the country, situated on the right bank of the latter river, from Delhi to near its confluence with the Ganges, and the modern province of Orissa.

was to be denominated the Board of Revenue for the Lower Provinces; (2) the duties, powers and authority exercised by the Board of Commissioners in the ceded and conquered provinces within the southern and northern Divisions of Bundelkhand and the districts of Allahabad and Cawnpore were vested in the Board of Commissioners in Bihar and Benares, which continued in like manner to exercise its power in the districts hitherto subordinate to its authority, with the exceptions just named, and was to be denominated the Board of Revenue for the Central Provinces; and (3) the several districts of the ceded and conquered provinces, with the exception of the districts above specified, were to continue subordinate to the Board of Commissioners, which was to be denominated the Board of Revenue for the Western Provinces. In 1829, as will presently be explained, the powers of the several local Boards of Revenue were made over to the Commissioners of Revenue and Circuit under the control of a Chief or Sadar Board of Revenue at Calcutta.

Board of Revenue for the Central Provinces.

Board of Revenue for the Western Provinces.

Superintendent of Police.

87. A Superintendent of Police was first appointed under Regulation X, 1808, for the Divisions of Calcutta, Dacca and Murshidabad, and under Regulation VIII, 1810, similar arrangements were adopted for Patna, Benares and Bareilly. These officers were abolished by Regulation I of 1829, and their duties were transferred to the Commissioners of Revenue and Circuit. Under Act XXIV of 1837 the Government was again empowered to appoint a Superintendent of Police, and in such case the Commissioner was to cease to exercise any powers in regard to the Magistracy and Police. In Bengal a single Superintendent of Police was accordingly appointed. After a short experience, however, it was found advisable to exempt from his jurisdiction the extra Regulation provinces of Assam and of the south-western frontier and the province of Orissa, and to replace them under the Divisional Commissioners. The Division of Chittagong was similarly removed in 1850. On the 23rd March 1854 the Court of Directors sanctioned the abolition of the appointment of Superintendent of Police, and the transfer of his duties to the respective Revenue Commissioners.

It has been stated that under the Code of 1793 the Civil Judges were constituted Magistrates of their respective jurisdictions, and that the offices of Judge and Magistrate long remained united. The separation was not actually effected for nearly forty years; but in 1810 a permissive regulation was passed (Regulation XVI of 1810), by which Government was empowered to make a distinct appointment of a Magistrate.

LORD WILLIAM BENTINCK.

Provincial Courts abolished, 1829. Commissioners of Revenue and Circuit: their powers—Judicial, Revenue and Police.

88. The system introduced by Cornwallis and Barlow lasted during successive administrations, with only the necessary modifications engrafted on it by time and circumstances; but under Lord William Bentinck extensive changes were again effected. By Regulation I of 1829 the executive officers of both police and revenue were placed under the superintendence of Commissioners of Revenue and Circuit, each of whom was vested with the charge of four or five districts. Lord William Bentinck abolished the provincial Courts, stigmatizing them "as resting-places for those members of the service who were deemed unfit for higher responsibilities." The Commissioners were appointed to go on circuit as Sessions Judges. The appointment of Superintendent of Police was abolished and vested in the Commissioner, with the fullest police control. The Revenue Boards in the Provinces were also abolished, and their powers vested in the Commissioners under the control of the Sadar Board at Calcutta. The Commissioners were absolutely to superintend both the finance and the criminal justice of their different divisions.

Civil Judges vested with Sessions powers, 1831—1835.

89. These arrangements were not, however, found completely successful, and after a very few years the Governor-General exercised his right of transferring the judicial powers of the Commissioners to the Civil Judges. It was declared (Regulation VII of 1831) competent to Government to invest the Civil Judges with full powers to conduct the duties of the Sessions, and by Act III of 1835 the Government was authorized "to transfer any part or the whole of the duties connected with criminal justice from any Commissioners of Circuit to any Sessions Judges, and to define the powers which shall be exercised by each respectively." Commissioners, however, still continued

to hold judicial powers, and were occasionally so employed. But Regulation VII of 1831 and Act III of 1835 were both repealed by Act VIII of 1868, and under the present law Commissioners have no such powers, as all Sessions Judges and officers invested with powers of Sessions Judges are appointed under the rules of the Code of Criminal Procedure.

Civil Judges divested of Magisterial Powers. Union of Magistrate and Collector, 1831.

90. The Judges under Lord William Bentinck's arrangement held a jail delivery every month. But the Judges were also the Magistrates, and as such it became evident that they were unable to cope with their additional duties. It was considered (1831) necessary to divest them of their magisterial responsibilities, and these were accordingly transferred to the Collector. This was the creation of the present unit of the administration, the Magistrate and Collector, or executive head, of each district.

Under Regulation VIII of 1833 the appointment of Additional Judges was sanctioned, who were to perform any part of the duties of the District Judges to which they might be appointed.

Principal Sadar Amins.

91. In 1831 Lord William Bentinck established also a higher grade of Indian Judgeships. Previously to this period there had been in fact but two classes of Indian Judges, with very limited powers and small salaries. The higher class was known as "Sadar Amins," the lower as "Munsifs." The Munsifs, originally denominated Commissioners, had been appointed by Lord Cornwallis to relieve the pressure on the European Judges. In 1803 the office of Sadar Amin was instituted, with a jurisdiction extending to suits of Rs. 100. In 1821, after some intermediate enlargement of the powers of both classes, the Munsifs had been empowered to try cases extending to Rs. 150, whilst the Sadar Amins took cognizance of cases to the amount of Rs. 500. In 1827 the authority of the latter class of officers had been doubled. Lord William Bentinck now established a superior class of judicial officers, known as Principal Sadar Amins, with enlarged powers and higher salaries. They were subsequently authorized to try cases involving property to any amount, and an appeal lay from them to the European Judges.

Small Cause Courts and Subordinate Judges.

92. The Small Cause Courts in Bengal were established by Sir John Peter Grant under Act XLII of 1860. In 1867 the Judges of the Small Cause Courts and the Principal Sadar Amins and Munsifs were amalgamated into one service. Small Cause Court Judges and Principal Sadar Amins have since been called indifferently Subordinate Judges, and are eligible alike for Small Cause Court work or for the work of the ordinary Civil Courts.

Deputy Collectors.

93. The office of Uncovenanted Deputy Collector was established under Regulation IX of 1833. The appointment was, in the first instance, open only to "natives of India of any class or religious persuasion," but was extended by Act X of 1843 to all persons of whatever religion, place of birth, descent or colour.

Separation of Agra and Assam from Bengal.

94. Up to 1834 the whole of the Bengal Presidency, including Assam, Benares and the ceded and conquered provinces of Upper India, was directly administered by the Governor-General of Bengal in Council. In 1834 the Governor-General in Council became Governor-General of India, and Bengal was then governed by the Governor-General in the capacity of Governor of Bengal without a Council. At the same time power was given to create a separate Governor of Agra, which was shortly modified, a Lieutenant-Governor being substituted for a Governor in 1836. After this reform no change was made in the territorial jurisdiction of the Lower Provinces for forty years. In 1874, however, it having been found that the charge of the province of Assam formed an inconvenient addition to the heavy work arising from the administration of Bengal, with which it had little in common, it was resolved to carry out a change which had been proposed some years previously. In February 1874 the Assam Division, together with the three districts of Sylhet, Cachar and the Garo Hills, was separated from Bengal, and formed into a separate administration on the model of the Central Provinces and British Burma. From this time the civil history of Bengal, Bihar and Orissa becomes entirely separate from that of the Upper Provinces on the one hand and that of Assam on the other.

Appointment of Deputy Magistrates, 1843.

95. The machinery of the revenue administration and civil justice having been strengthened, the expediency of a more extensive employment of uncovenanted agency in the Criminal branch of the Judicial Department forced itself into notice. But it was not till 1843 that an Act was framed by the Legislative Council, empowering the Government to appoint in any district one or more uncovenanted Deputy Magistrates, with or without police powers as might be determined.

Separation of the office of Magistrate and Collector, 1837.

96. The union of the offices of Magistrate and Collector, as established under Lord William Bentinck, was, however, only of temporary duration. It also happened that at that time the business of a Collector became engrossing and onerous, while the duties of the Magistracy were comparatively disregarded. The additional work imposed by the operations for the resumption of revenue-free tenures was treated as if it had been permanent. In 1837 Lork Auckland and the Court of Directors sanctioned the separation of the offices of Magistrate and Collector.

The progress of separation of the office of Magistrate and Collector went on gradually until 1845. In that year the Magisterial and Fiscal offices were disunited everywhere except in three districts of Orissa, and in the independent Joint-Magistracies of Pabna, Malda, Bogra, Bhuluah (or Noakhali), Faridpur, Bankura, Barasat and Champaran. The salaries of the separated Collectors were uniformly fixed at Rs. 23,000 a year, except in Bhagalpur, Monghyr and Birbhum where they were Rs. 18,000; but the salaries of Magistrates, which it was intended at the time of separation should be in two grades of Rs. 18,000 and Rs. 12,000, were reduced in 1842 by order of the Court of Directors to Rs. 10,800 per annum.

Creation of the Lieutenant-Governorship of Bengal.

97. At this point may be noticed the creation of the Lieutenant-Governorship of Bengal. In 1854 the Government of Bengal was entrusted to a Lieutenant-Governor, and the personal connection with the Government of India, which had resulted from the union of the offices of Governor-General of India and Governor of Bengal, ceased to exist. Henceforth the Government of India became entirely distinct from that of Bengal.

Reunion of Magistrates and Collectors, 1859.

98. In 1859 the offices of Magistrate and Collector were again united. This reunion had been the subject of anxious deliberation in India for six years before it was finally resolved upon. The measure was strongly advocated by Sir Frederick Halliday, the Lieutenant-Governor of Bengal, by Lord Dalhousie, and by Lord Canning, and was as strongly opposed by Sir John Peter Grant. It was sanctioned by Lord Stanley, who was then Secretary of State for India, in his despatch No. 15, dated 14th April 1859. He directed—" (1) that the offices of Magistrate and Collector, where now disunited in Bengal, should be combined in the same person, and that such of the covenanted officers as are now Magistrates, and are not absorbed in the higher office, should be employed as Joint Magistrates and Deputy Collectors, but without any decrease of salary; and (2) that the Joint Magistrate in each district should ordinarily have the superintendence of the police under the general control of the Magistrate." These orders were rapidly carried out in all the districts of Bengal where the appointments were separate.

The independent Joint-Magistrates abolished.

99. At the same time seven of the eight independent Joint-Magistrates already alluded to were established full Magistracies and Collectorates. At first these were offshoots from large districts, and were created as *quasi*-subdivisions in the early part of this century, to stem the tide of crime and dacoity in localities remote from the headquarters station. The Joint-Magistrates of these subdivisions, from exercising a joint jurisdiction with the Magistrate of the district, gradually came to exercise independent criminal powers, but in revenue matters they never were invested with more than the powers of a Deputy Collector, and the land revenue always continued to be paid at the headquarters treasury. Of these eight Joint-Magistracies and Deputy Collectorates, four were upon Rs. 18,000 per annum, and four upon Rs. 12,000. At the time of the reunion of the offices of Magistrate and Collector, Barasat was reduced to an ordinary subdivision.

The present grade of Joint-Magistrate.

100. The present Joint-Magistrates were created by Lord William Bentinck, in order to afford more efficient aid to the Magistrate-Collectors than could be given to them by mere assistants vested only with the powers of

an Assistant under the regulations. Lord William Bentinck established two classes of covenanted officers subordinate to the District Officer—one, a Joint-Magistrate and Deputy Collector on a salary of Rs. 1,000 a month; the other, a Head Assistant on Rs. 700. The latter was abolished by Government order, dated the 16th August 1836, and a second grade of Joint-Magistracy was constituted in its stead on the same salary, but with the full powers of a Joint-Magistrate and Deputy Collector. The salary of the first grade of Joint-Magistrates was reduced to Rs. 900 a month in 1842. The salaries of Joint-Magistrates, like those of other members of the executive and judicial branches of the Indian Civil Service are now regulated by the general time-scale of pay introduced in December 1919.

The Bengal Police Act, 1861.

101. In 1861, shortly after the reunion of Collectorates and Magistracies, the police was established as a separate department under the Magistrate; and District Superintendents and Assistant Superintendents of Police were appointed to discipline the force. An Inspector-General and Deputy Inspectors-General were placed at the head of the police to supervise and inspect the department.

Modification of grades of Magistrate and Collector, 1860.

102. At this same the 36 Regulation districts in these provinces were in charge of Magistrates and Collectors receiving the following salaries:—

In 3 districts: Rs. 28,000* per annum.
In 22 districts: Rs. 23,000 per annum.
In 7 districts: Rs. 18,000 per annum.
In 4 districts: Rs. 12,000 per annum.

These salaries were local, the salaries of particular classes being attached to particular districts. To remove the administrative inconveniences which resulted from this arrangement Sir John Peter Grant proposed in that year the following changes: *firstly*, that the salaries of Magistrates and Collectors be made *personal*, instead of *local*, by throwing these officers into grades; and *secondly*, that there be only two instead of four such grades or classes of Collector and Magistrate, with corresponding rates of salary. He provided for 20 Magistrate-Collectors in the first grade, on Rs. 23,000 per annum; one Magistrate and one Collector at the 24-Parganas, each of whom drew the full salary of Rs. 23,000; and 15 Magistrate-Collectors in the second grade, on Rs. 18,000—altogether 37 officers. The separate appointments of Magistrate and Collector in the 24-Parganas were amalgamated in April 1865 into a single first grade Magistrate-Collector. The number was thus reduced to 36. At the same time two officers were taken from the second grade and added to the first grade. There were, therefore, 23 Magistrate-Collectors sanctioned in the first grade and 13 in the second grade. Subsequently, in 1873, in pursuance of the policy initiated by Sir George Campbell for separating the executive and judicial branches of the Civil Service and equalizing the rates of salary in both, a new gradation was introduced. The 36 Magistrate-Collectors were divided into three grades. The first grade included 15 officers on Rs. 2,250 per mensem, the second grade 15 officers on Rs. 1,800 per mensem and the new third grade 6 officers on Rs. 1,500 per mensem.

Since that time several re-adjustments of the cadre have been made in consequence of territorial changes. Including posts of Additional District Magistrates created in certain larger districts and certain other appointments classed for cadre purposes as Collectorships, there are now (1st April 1922) 42 posts of Magistrate-Collectors. As has already been mentioned, they have been placed on a time-scale of pay which ranges from Rs. 1,150 per month to Rs. 2,500 (including overseas pay in the case of officers of non-Indian domicile).

Including Additional Judgeships the cadre of District and Sessions Judges now consists of 32 posts. Judges, with the exception of three officers who have been placed in a special grade on Rs. 3,000, now draw the same time-scale pay as Magistrate-Collectors of the same seniority, plus a judicial allowance of Rs. 150 per month.

* These three officers were the Magistrate-Collectors of Puri, Balasore and Cuttack who were Salt Agents as well.

Non-Regulation districts.

103. The non-Regulation districts under the Governor of Bengal consist of (1) new conquests or cessions to which the regulations were never extended, and (2) tracts of country formerly subject to the general regulations, but which were removed from their operation by special enactments. These districts are now known as the "Scheduled districts" under Act XIV of 1874. They consist of the Jalpaiguri and Darjeeling districts and the Hill Tracts of Chittagong.

Regulation X of 1822.

Regulation X of 1822 established the principle that there were races of people within these territories entirely distinct from the ordinary population, to whose circumstances the system of Government established by the general regulations was inapplicable. Such were the mountaineers of Bhagalpur, the Paharia community, for the reclaiming of whom special arrangements were carried out by Augustus Cleveland before the introduction of the regular system. The uncertain and semi-barbarous territory on the north-eastern frontier of Rangpur was de-regulationized under Regulation X of 1822. The existing rules for the administration of civil and crimnal justice were suspended, and a Commissioner was appointed with full power to conclude arrangements with the Chiefs, and to conduct the entire administration of the tract under the Governor-General in Council. This law was the germ of the later non-Regulation administration.

Jalpaiguri.

104. In 1866 the northern portion of Rangpur was transferred to the non-Regulation Commissionership of Cooch Behar, which was formed in that year, and eventually was united with the submontane country ceded by the Bhutias to form the district of Jalpaiguri. In 1874, on the formation of Assam into a separate administration, the Cooch Behar Division was abolished as a separate charge, and Jalpaiguri was transferred to the Rajshahi Division, of which it still forms a part.

Darjeeling.

105. A part of the hill portion of the district of Darjeeling was ceded by the Raja of Sikkim in 1835. The Morung lowland under the hills and another portion of the hills were taken from him in 1850, in consequence of his having seized and detained in confinement the Superintendent of Darjeeling while travelling peaceably through his country. The portion of the hills known as British Bhutan was ceded by the Bhutias after the Bhutan war in 1865, and annexed to Darjeeling. The district was placed under the charge of an officer called Superintendent, whose designation has since been changed to that of Deputy Commissioner. The Criminal and Civil Procedure Codes were extended to Darjeeling in 1863. The Police administration of the district was conducted under Regulation XX of 1817 until the 25th May 1864, when Act V of 1861 was introduced.

Hill Tracts of Chittagong.

106. The Hill Tracts of Chittagong were removed from the operation of the general regulations by Act XXII of 1860. The excepted tract was placed under an officer called the Superintendent, and a few short rules were prescribed for his guidance in the administration of civil and criminal justice and the collection of revenue. They only laws in force were Act XXII of 1860, Act IV (B.C.) of 1863, and the two Regulations V of 1873 and III of 1881. Owing to the extension of the eastern frontier and the formation of the South Lushai Hill district, the Chittagong Hill Tracts district lost much of its political importance, and it was reduced to the status of a subdivision in charge of an Assistant Commissioner who, for administrative facilities, was made immediately subordinate to the Commissioner of the Chittagong Division.

In 1900, Act XXII of 1860 and the Bengal Act IV of 1863 were repealed by the Chittagong Hill Tracts Regulation, 1900, and the enactments now in force in those tracts are given in the schedule attached thereto. The Hill Tracts were then again formed into a district and the designation of Superintendent was restored to the officer in charge of them. In 1919, it was decided, in order to improve the administration of the area, to place the Hill Tracts under the general supervision of a member of the Indian Civil Service with the style of "Deputy Commissioner" and to divide the area into three subdivisions, corresponding with the three Chiefs' circles in charge of three Subdivisional Officers who would be directly responsible to the Deputy Commissioner for the administration of their

subdivisions. The Regulation of 1900 was accordingly amended by the Chittagong Hill Tracts (Amendment) Regulation, 1920, which changed the designation of the controlling officer from " Superintendent " to " Deputy Commissioner " and substituted " Deputy Magistrates and Deputy Collectors " for the existing " Assistant Superintendents."

Native States.

107. There are two semi-independent States *viz.*, Cooch Behar and Tripura State, in respect of which the Governor of Bengal acts as Agent to the Governor-General.

Cooch Behar.

108. A Commissioner for carrying on the administration of the Cooch Behar State was repeatedly appointed in the last century and the early part of the present century. Finally, in 1863, a Commissioner was appointed during the minority of the then Raja, Nripendra Narayan. In 1866 Cooch Behar was raised into a non-Regulation Commissionership; and the districts of Darjeeling, from the Bhagalpur Division, and Goalpara and the Garo Hills, which had been under the Assam Division, were placed within the new jurisdiction. At the same time the northern portion of Rangpur was transferred to this division, and eventually united with the submontane country ceded by the Bhutias, forming the district of Jalpaiguri. In 1868 the judicial administration of the Goalpara district was placed under the Judicial Commissioner of Assam, the administration in other matters remaining with the Divisional Commissioner. In 1874, on the formation of Assam into a separate Administration, the Cooch Behar Division was abolished as a separate charge, and such of its districts as were still attached to the Government of Bengal were transferred to the Rajshahi Division, thenceforward known for some years as the Rajshahi and Cooch Behar Division. The young Raja was granted the hereditary title of Maharaja Bahadur in 1880 and came of age in 1883 when he was installed as Ruler, and the State was released from the direct control of the Commissioner.

Up to the death of the late ruler, His Highness Maharaja Sir Jitendra Narayan Bhup Bahadur, K.C.S.I., which occurred in England on 20th December 1922, the State was managed by the Maharaja with the assistance of a Council of which he was himself the President. The Vice-President of the Council, who is also in charge of the General Department of the State, is a member of the Indian Civil Service whose services have been lent to the State by the British Government, the other members of the Council being Maharaj-Kumar Victor Nityendra Narayan, brother of His Highness, the Financial Secretary, the Judicial Member of the Council, the Secretary to His Highness and the Revenue officer of the State.

In March 1901, a Legislative Council was created, consisting of the members of the State Council and five additional members representing important interests in the State and appointed by the Maharaja. The Commissioner of the Rajshahi division is *ex-officio* Political Agent for the State in respect of extradition cases.

Tripura State.

109. The Native State Hill Tippera, or Tripura State as it is now called, is a hilly country, bounded on the north by the district of Sylhet, on the west by the districts of Tippera and Noakhali, on the south by Noakhali and Chittagong, and on the east by the Lushai country and the Chittagong Hill Tracts.

On the grant of the Dewani, the East India Company placed a Raja on the *gadi* of the State; and since 1808 each successive ruler has received investiture from the Government, has been required to pay the usual *nazar*, on succession. In 1870 the position of the Raja was declared by the Government of India to be that of a feudatory, and on the 21st June 1904, a *sanad* was granted to him by the Viceroy, settling the question of succession to the State and its appurtenances. He has, however, no treaty with the British Government, nor does he pay any tribute. In October 1918, the Raja was granted the title of Maharaja as an hereditary distinction by the Government of India.

Tripura State holds a unique place among the Native States. The Maharaja is not only an independent ruler within his own territories, having his

own laws and regulations, but he also holds a large zamindari, called *chakla* Roshnabad, situated in the plains of the district of Tippera. This estate, which covers 650 square miles, is by far the most valuable portion of the Maharaja's possessions and yields a larger revenue than the whole of his kingdom of Tripura State. It is held to form with the State what is legally known as an *impartible raj*, and the Maharaja for the time being is both a British Zamindar and a ruling chief. Consequently, whenever the succession was disputed, the question was allowed to be decided by the British courts of law. The latest decision, however, is that the latter have no further jurisdiction than to declare that the ruler selected by the Government for the State is the rightful proprietor of the zamindari. Disputes as to the right of succession have occurred on the occasion of almost every vacancy in the *raj*, the cause being the rule of succession, the origin of which is lost in obscurity.

The administration of both the State and the zamindari has been a frequent source of anxiety to British officials. In 1871 a Political Agent was appointed to reside at Agartala, the Raja's capital, with the object of protecting British interests on the frontier which were in special danger from the Lushai raids, and to advise the Raja; but in 1878, a separate Political Agent being found unnecessary, the Magistrate of the adjoining district of Tippera was appointed *ex-officio* Political Agent. Since then some improvements have been effected in the State by the adoption of British methods of administration and of codes framed on British models, and in the zamindari by a survey and settlement under the Bengal Tenancy Act which was concluded in 1899. In 1910 a Resident Political Agent was again appointed, but the post was abolished in June 1921 when the District Magistrate of Tippera was once more appointed *ex-officio* Political Agent.

The present ruler, His Highness the Maharaja Manikya Birendra Kishore Deb Barman Bahadur, was confirmed in succession to his father Raja Radha Kishore Manikya in 1909 at the age of 27 and was formally installed as Raja by the Lieutenant-Governor of Eastern Bengal and Assam in November 1909. Ten years later in August 1919, he was formally invested with the hereditary title of Maharaja by His Excellency the Governor of Bengal.

Government of Bengal.

110. The separation of the Government of Bengal from the Government of India and the United Provinces, and from the administration of Assam, has been already noticed in the course of this narrative; but it will be convenient to recite here more exactly the origin of the present form of government.

Subdivision of Bengal Presidency, 1834.

Governor of Agra.

Governor-General appointed Governor of Bengal.

Deputy Governor of Bengal.

111. The Bengal Presidency was divided into two portions by Act of Parliament in 1834, the titles selected being "Fort William in Bengal" and "Agra." Agra was to be placed under a separate Governor, but the Governor-General of Bengal (created by this same Statute Governor-General of India) was declared to be the Governor of Fort William in Bengal. It was left optional with the Court of Directors either to appoint a Council to assist the newly-created Governor, or to leave the executive government to be administered by such Governor alone; and the Governor or Governors in Council were to "have all the rights, powers, duties, functions, immunities whatsoever, not in anywise repugnant to this Act, which the Governors of Fort St. George and Bombay, in their respective Councils, now have in their respective Presidencies."

The Governor-General was also empowered to appoint a Deputy Governor from among the ordinary Members of his Council, who would be invested with all the powers and perform all the duties of the Government during his absence.

In 1835 another Act was passed, which declared that, whereas much difficulty had arisen in dividing Bengal into two Presidencies, "and the same would be attended with a large increase of charge," the Court of Directors might suspend the execution of so much of the said Act.

Lieutenant-Governor of North-Western Provinces, 1836.

112. By section 2 the Governor-General in Council was authorised to "appoint a Lieutenant-Governor of the North-Western Provinces, now under the presidency of Fort William in Bengal, and from time to time declare and limit the extent of the territories so placed under such Lieutenant-Governor,

and the extent of the authority to be exercised by such Lieutenant-Governor." This power of suspension was exercised, and on the 29th February 1836 the first Lieutenant-Governor of the North-Western Provinces was appointed " with the same powers as have, heretofore, been exercised by the Government of Agra."

Appointment of Lieutenant-Governor of Bengal 1854.

113. Bengal remained under the Governor-General as Governor, his place during his occasional absence being supplied by a Deputy Governor appointed from among the Members of his Council, till 16 and 17 Vict., Cap. 95, was passed. Section 15 of that Act continued the power vested in the Directors to make Agra a separate Presidency or leave it under a Lieutenant-Governor; and section 16 empowered them also to declare " that the Governor-General of India shall not be Governor of the Presidency of Fort William in Bengal, but that a separate Governor shall be appointed, and until such Governor be appointed the Directors may authorise the Governor-General in Council to appoint any servant of the said Company, who shall have been ten years in their service in India, to the office of Lieutenant-Governor, * * and to declare and limit the extent of the authority of the Lieutenant-Governor to be so appointed." The appointment by 21 and 22 Vict., Cap. 106, section 29, was made subject to the approbation of Her Majesty.

On the 12th October 1853 the Court of Directors authorised the appointment of a Lieutenant-Governor of Bengal, and in Home Department Resolution No. 415 of 28th April following the Hon'ble Mr. F. J. Halliday was appointed first Lieutenant-Governor. Paragraph 7 of this Resolution fixed the territorial jurisdiction of the Lieutenant-Governor, which was to be " co-extensive with the jurisdiction which has, heretofore, been exercised by the Governor of Bengal, with the exception of the Tenasserim Provinces, which, like the adjoining province of Pegu, shall be placed directly under the Governor-General in Council." Paragraph 8 fixed the extent of his authority. It was to " correspond in all respects with the authority that has been exercised by the Lieutenant-Governors of the North-Western Provinces."

Formation of the Chief Commissionership of Assam, 1874.

114. By the year 1874 the province of Bengal had become too unwieldy to be managed by one government, and the inconvenience of governing Assam as an appanage of that province was recognized. Accordingly in that year Assam was separated from Bengal and formed into a separate administration under a Chief Commissioner.

Creation of the Province of Eastern Bengal and Assam, 1905.

115. For nearly 30 years after the separation of the two provinces, the territorial jurisdiction of Bengal remained unaltered, except for the transfer of the South Lushai Hills to Assam in 1898. But as time went on it began to be felt more and more that Bengal was still too heavy a charge for a single administration. The enormous area included in the province, the growth of the population, the constantly increasing number and complexity of problems pressing for solution, the ever-growing importance of Calcutta, the increasing congestion of business in the Bengal Secretariat, the urgency of new administrative needs and the demands for progress in all directions, all these made increasing calls upon the time and energy of the Lieutenant-Governor, and made it absolutely necessary to grant him some relief. This was effected by a proclamation, dated the 1st of September 1905, issued by the Government of India by which the tracts commonly known as North and East Bengal, comprising the districts of the Dacca, Rajshahi and Chittagong Commissionerships with the exception of Darjeeling, and the addition of Malda, were separated from Bengal and amalgamated with Assam. The whole of the tract was formed into a new Province, known as Eastern Bengal and Assam, and placed under a Lieutenant-Governor, aided by a Legislative Council. At the same time the district of Sambalpur and five Oriya-speaking States were detached from the Central Provinces, of which they had hitherto formed a part and added to the Orissa Division. In return, Bengal handed over to the Central Provinces five Native States which formed a solid block of territory with a Hindi-speaking population.

Creation of an Executive Council for Bengal, 1910.

116. Bengal continued to be governed by a Lieutenant-Governor until 1910 when an Executive Council was created to assist him. The spread of education and the consequent growth of public opinion, combined with the

enlargement of the Provincial Legislative Council during the preceding year, had increased the duties and responsibilities of the head of the Province to such an extent that it was difficult for him to cope with them unaided. With the object of lightening the labour of the Lieutenant-Governor as well as of strengthening his authority, without at the same time impairing the prompt exercise of his executive power, the Governor-General in Council was empowered by section 3, sub-section (1) of the Indian Councils Act, 1909 (9 Edw. 7, c. 4), to create an Executive Council in Bengal. The Council was created by a proclamation, dated the 18th November 1910. The number of Members was fixed at three or four. Two of the Members were to be persons who had been in the service of the Crown in India for at least twelve years. The other Member or Members were to be either persons so qualified or persons who had resided in India for at least twelve years. The Lieutenant-Governor was authorised to overrule the Council in cases of high importance, essentially affecting the public interest and welfare. Three Members were appointed and assumed charge of their offices on the 19th November 1910.

Reconstitution of Bengal and appointment of a Governor, 1912.

117. The Presidency of Bengal as now constituted dates from the 1st April 1912. The administrative changes which accompanied its constitution were announced on the occasion of the Durbar held at Delhi on the 12th December 1911, when King George V commemorated in person his coronation in Westminster Abbey as King of the United Kingdom of Great Britain and Ireland and of the British Dominions beyond the Seas and as Emperor of India. The King-Emperor in person announced the transfer of the seat of the Government of India from Calcutta to the ancient capital Delhi, and, simultaneously and as a consequence of that transfer, the creation of a Governorship for the Presidency of Bengal, of a new Lieutenant-Governorship in Council administering the areas of Bihar, Chota Nagpur and Orissa and of a Chief Commissionership of Assam, with the necessary administrative changes and redistribution of boundaries.

The Delhi Despatch of 25th August 1911.

The correspondence which led up to these Durbar announcements is embodied in a despatch from the Government of India dated the 25th August 1911, and in the Secretary of State's reply of the 1st November 1911. The despatch begins by elaborating the proposal of the Government of India to make Delhi the future capital, because, it said, " we consider this the keystone of the whole project." It was certain that in the course of time the just demands of Indians for a larger share in the Government of the country would have to be satisfied and the question would be how this devolution of power could be conceded, without impairing the supreme authority of the Governor-General in Council. The only possible solution of the difficulty would appear to be gradually to give the Provinces a larger measure of self-Government until at last India would consist of a number of administrations, autonomous in all provincial affairs, with the Government of India above them all, and possessing power to interfere in cases of misgovernment, but ordinarily restricting their functions to matters of Imperial concern. In order that this consummation might be attained, it was essential that the supreme Government should not be associated with any particular Provincial Government. The removal of the Government of India from Calcutta was, therefore, a measure which would materially facilitate the growth of local self-government on sound and safe lines.

Starting from the proposition that Delhi must be the future capital, the despatch went on to discuss the best mode of dealing with the Presidency of Bengal. Simple rescission of the partition effected in 1909 and a reversion to the previous state of things were manifestly impossible both on political and administrative grounds. But the partition should be remodelled and the despatch indicated the lines on which, in the opinion of the Government of India, the remodelling ought to be carried out. The re-arrangement effected in pursuance of the Durbar announcements made the following changes:—

Rearrangement of Partition, 1911.

(1) It reunited the five Bengali-speaking divisions of the old province of Bengal and formed them into a presidency administered by a Governor in Council.

(2) It created a Lieutenant-Governorship in Council consisting of Bihar, Chota Nagpur and Orissa with a Legislative Council and a capital at Patna.

(3) It detached Assam from Eastern Bengal and placed it again under a Chief Commissioner.

These administrative changes were mainly effected under powers conferred by Acts relating to the Government of India, but some supplementary legislation was required both in India and England. The Secretary of State for India in Council made a formal declaration that the Governor-General of India should no longer be the Governor of the Presidency of Fort William in Bengal and that a separate Governor should be appointed for that Presidency. By a proclamation notified on the 22nd March 1912, it was declared that on and from the 1st April 1912, the countries subject to the Presidency of Fort William in Bengal should consist of the Dacca, Chittagong, and Rajshahi Divisions of Eastern Bengal and Assam, and the Burdwan and Presidency Divisions along with the district of Darjeeling in Bengal.

By a royal warrant dated the 21st March 1912 Baron Carmichael of Skirling, previously Governor of Madras, was appointed Governor of the new Presidency and took his seat as Governor on 1st April 1912.

Introduction of the Reforms Scheme.

118. Lord Carmichael was succeeded by Lord Ronaldshay on the 26th March 1917. The latter's administration was marked by the momentous administrative changes entailed by the introduction of the Reforms Scheme of Government. The great war materially changed the political atmosphere in India. The magnificent war services of the provinces and people of India were recognised by the admission of representatives of India to the Imperial War Conference, to the Imperial War Cabinet and among the Imperial Delegates at the Peace Conference. These things inspired or quickened among the politically minded classes in India the sense of being an integral part of a world-wide empire and at the same time the speeches of English and American statesmen proclaiming the necessity for destroying German militarism and for conceding the right of self-determination to the nations had much effect upon political opinion in India and contributed to give new force and vitality to the demand for self-government which was making itself more widely heard among the progressive section of the people. The Morley-Minto Reforms from which so much had been expected and by which so much had been achieved, were now condemned as no longer adequate to Indian needs. Much important correspondence on Indian reforms ensued between the India Office and the Government of India which culminated in the Secretary of State for India's declaration of the 20th August 1917, which set the seal upon the new policy. " The policy of His Majesty's Government, " he said, " with which the Government of India are in complete accord, is that of the increasing association of Indians in every branch of the administration, and the gradual development of self-governing institutions with a view to the progressive realisation of responsible Government in India as an integral part of the British Empire." The development of the details of the scheme thus outlined was marked by the following stages; the visit in 1917-18 of the Secretary of State to India; the Joint Report on Indian Constitutional Reforms (March 1918) of the Secretary of State and the Viceroy, usually called the Montagu-Chelmsford report; the visit in 1918-19 of the Franchise Committee and the Committee on the Division of Functions, both under the Chairmanship of Lord Southborough; the Government of India Act of 1919 and its previous consideration by a joint Select Committee of both Houses of Parliament; the King's Proclamation in December 1919 regarding the reforms, and finally the introduction of the Reforms Scheme of Government in January 1921.

The Dyarchy.

119. On the administrative side, the most important feature of the scheme was the adoption of the principle of dyarchy by which the functions of Government are divided vertically between " reserved " and " transferred " departments, the "reserved" departments being administered as hitherto by the Governor in Council responsible to the Crown, while the " transferred " departments are administered by the Governor acting on the advice of Ministers who are elected members of the legislature and are amenable to control by

that body. In other words, in respect of reserved subjects, such as law and order, it is the Governor in Council who still says what should or should not be done. He is responsible to the Crown for his policy in such matters and he cannot transfer that responsibility to the Ministers or to the Legislative Council. In respect, however, of the transferred subjects it is the Minister who lays down the policy and controls the departments. He is responsible to the Legislature and holds a position which, if not wholly identical, is at least analogous to that of a member of the Cabinet in Great Britain. Four Members of the Executive Council were appointed by the Crown to have charge of the reserved departments and three Ministers were appointed by His Excellency the Governor to have charge of the transferred departments. They assumed charge of their office on the 3rd January 1921. The main branches which were transferred to the Ministers were Agriculture, Industries and Public Works (excluding Irrigation), Local Self-Government and Public Health, and Education, but the districts of Darjeeling and the Chittagong Hill Tracts remained entirely in the charge of the Executive Council. The salient features of the reforms on the legislative side, *viz.*, the broadening of the franchise by the creation of an electorate and the establishment of enlarged legislatures both central and provincial, mainly elected and non-official, are described fully in Chapter III. The nature and extent of the administrative revolution brought about by the Reforms Scheme has been thus summarised by Lord Ronaldshay in his speech delivered at the inauguration of the Legislative Council. "In place of an Executive consisting, apart from the Governor, of two European officials and one Indian non-official gentleman, there has now been established an executive of two European officials and five Indian non-official gentlemen: in other words, the Indian element in the Executive Government of this country has been converted from a permanent minority to a permanent and overwhelming majority."

Form of Administration.

Regulation and non-Regulation districts.

120. The province is divided into (1) districts subject to the general Regulations and Acts, and (2) tracts known as the scheduled districts, to which all the Regulations and Acts do not apply of their own force, but to which they may be extended at the discretion of Government; the only non-Regulation districts in the province are the Hill Tracts of Chittagong, and the districts of Jalpaiguri and Darjeeling.

Calcutta.

121. The capital of the province (Calcutta) has, like the other Presidency towns, a special organisation of its own. In civil suits above a certain limit as well as in all sessions trials, it is under the original jurisdiction of a branch of the High Court, in which only English and Irish barristers and Scotch advocates can practise. The Small Cause Court of Calcutta is of purely local jurisdiction, and is regulated by a special Act. A separate establishment of police is under the control of a Commissioner assisted by seven Deputy Commissioners and twelve Assistant Commissioners. Criminal Justice is administered by five stipendiary Magistrates of Police and a number of Honorary Magistrates. There are two Municipal Magistrates who are concerned exclusively with offences under the Municipal Act. In revenue matters also the city forms part of no district, though it is subordinate to the Commissioner of the Presidency Division. Customs and Stamps are under the control of the Collector of Customs and the Collector of Stamp Revenue, respectively. The system of municipal administration at present in force in the city will be found described in the paragraph on "Municipalities."

Civil Service.

122. The Public Civil Service as at present organized consists of members of the Indian Civil Service, of the Bengal Civil Service and of the Subordinate Civil Service. In addition there are a number of officers of the executive and judicial branches of the Bengal Civil Service holding appointments as Magistrate-Collectors and Judges in accordance with rules framed under section 99 of the Government of India Act. There is also one District and Sessions Judge recruited from the Bar.

123. Up till 1919, the Indian Civil Service of the province was without exception composed of men who had been selected after open competition in England. But a number of officers have since been recruited by nomination under a special Act (the Temporary Provisions Act of 1915) from among men who rendered active service during the war. A number of Indians also have been recently recruited by nomination by the Secretary of State for India. In the present year (1922) an additional competitive examination has been instituted in India so that in future officers will be recruited from two sources—from India and from England. On the 31st March 1922 there were 24 Indians among the members of the Indian Civil Service in this Presidency. The principal appointments held in Bengal at present by officers of the Civil Service of India are two Memberships of the Executive Council, seven Judgeships of the High Court, the Membership of the Board of Revenue, the five Commissionerships, and the principal Secretariat appointments, the posts of Legal Remembrancer (who is also *ex-officio* Judicial Secretary), Chairman, Calcutta Improvement Trust, Commissioner of Excise, Director of Land Records, the District and Sessions Judgeships (except six held by members of the Bengal Civil Service), the District Magistrate-Collectorships (except six held by members of the Bengal Civil Service), and practically all the Joint Magistracies and Assistant Magistracies. Under present arrangements Civilians are called upon at the end of the 12th year of their service to elect for the Executive or Judicial branch of the Civil Service and are posted to the one or the other after due consideration of their wishes and the public interests.

Indian Civil Service.

124. The Bengal Civil Service—a designation which has recently been substituted for that of Provincial Civil Service—consists of two branches, the Judicial and the Executive. The great majority of its members are natives of India. The members of the Judicial branch are recruited, under rules framed by the Local Government, on the nomination of the High Court, and are required to be graduates in law or to have passed an analogous examination. They hold the posts of Subordinate and Small Cause Court Judges and of Munsifs. Promotions from the grades of Munsifs to those of Subordinate Judges are made by the Local Government. In 1896, the experiment of appointing three Subordinate Judges to act as Assistant Sessions Judges was tried with a view to their training in criminal work and ultimate selection for promotion to the grade of District and Sessions Judges and the system has been continued and extended. The Executive branch consists of Deputy Magistrates and Deputy Collectors who have hitherto been selected by the local Government under the general control of the Government of India, and include officers promoted from the Subordinate Civil Service. In 1922 an annual competitive examination for direct recruitment to the service was instituted. Both branches of the service have recently been placed on a time-scale of pay; that for the Executive branch has been fixed at Rs. 250 per month, rising to Rs. 850 per month in the 25th year of service, with a selection grade on Rs. 1,050 a month; that for the Judicial branch begins at Rs. 275 per month, rising to Rs. 850 in the 23rd year of service, with two selection grades on Rs. 1,000 and Rs. 1,200, respectively. Twelve appointments which were formerly reserved for members of the Civil Service of India have now been thrown open to members of the Bengal Civil Service.

Bengal Civil Service.

The principal appointments held permanently from 1st April 1922 by members of this service included the Inspector-Generalship of Registration, six posts of District Magistrates and Collectors and six District and Sessions Judgeships. In addition nine members of the service were officiating as District and Sessions Judges and as District and Additional District Magistrates.

125. The service of Sub-Deputy Collectors, which is now called the Subordinate Civil Service, was created in 1873, with the object of improving the internal administration of the districts in Bengal. The status and the qualifications of Sub-Deputy Collectors have been considerably raised since 1873, and they are now recruited from the same class as the Deputy Magistrates. In future direct recruitment will be made to the service by

Subordinate Civil Service.

competitive examination. The service is now composed of 343 Sub-Deputy Collectors, including 150 who have been recruited for employment as circle officers, in connection with the scheme of local self-government formulated in the Village Self-Government Act of 1919. The service has recently been placed on a time-scale of pay, rising from Rs. 150 per month to Rs. 400 in the 25th year of service, with a selection grade on Rs. 450. Those who are not employed as circle officers are chiefly employed on duties connected with the administration of the land revenue, on settlement, cess revaluation, partitions, collection of rent in Government estates, etc. Most of them are also vested with magisterial powers of the second or third class and take no small share in the judicial work of the districts. To a great extent they are employed as second officers in subdivisions where they usually hold charge of the Treasury.

Executive Administration.

126. As in other parts of India, the unit of administration is the District Magistrate and Collector. As Collector, he supervises the collection of the various branches of the revenue, and is the head of all the departments connected with it; as District Magistrate, he is responsible for the administration of criminal justice in the district, and is vested with certain well-defined original and appellate criminal powers. The district jail, though placed in the hands of an officer, usually the Civil Surgeon, selected for the duty, is under his general control, while, as head of the police, he exercises a general supervision over the force at his disposal. The District Officer is in fact the executive chief and administrator of the tract of country committed to his charge, and is assisted in his work by Subordinate Magistrates, who exercise both revenue and magisterial powers, and, in all but the smallest districts, by Subdivisional Magistrates who are usually Joint, Assistant, or Deputy Magistrates.

Above the District Magistrates are the Divisional Commissioners. Their duties are principally those of supervision. In almost all matters they exercise a general superintendence, and especially in the Revenue Department they keep a control over the Collectors' proceedings. Commissioners are the channels of communication between the local officers and Government, sifting, collating, and bringing together in a compact form the information they receive. In certain revenue matters the Commissioners are in their turn subject to the orders of the Board of Revenue in Calcutta : in other matters they are under the direct control of Government.

The Civil Secretariat consists of the Chief Secretary, who is in charge of the Political and Appointment Department, the Revenue Secretary, the Financial Secretary, the Judicial Secretary, the Education Secretary, the Secretary to the Department of Local Self-Government, and the Secretary to the Department of Agriculture and Industries. There are also two Deputy Secretaries, two Under-Secretaries and four Assistant Secretaries.

At the head of the administration is the Governor assisted by an Executive Council of four Members who are in charge of the "reserved" departments and three Ministers who are in charge of the "transferred" departments.

Financial Administration.

127. The introduction of the reformed constitution brought about a complete change in the financial relations between the Central and Provincial Governments. Hitherto the resources of the latter were derived mainly from a share of divided heads of revenue and from lump assignments from Imperial revenues. From 1921-22, however, definite sources of revenue and definite subjects of administration have been allocated to each Provincial Government and a complete separation between the revenue and expenditure of the Central and Provincial Governments has been effected, though all moneys received from provincial revenues are paid into the public account of which the Governor-General in Council continues to be the custodian. Under the new arrangement the principal sources of provincial revenues are land revenue, stamps and excise. In the provincial budget for 1921-22 receipts were estimated at Rs. 10,47,95,000 and expenditure at Rs. 12,59,61,000. There were three stages through which the examination of the new financial arrangements passed. First, there was the stage of preliminary correspondence between the Government

of India and local Governments. This was followed by the enquiry of the Meston Committee, and finally came the examination of the report of the latter Committee by the Joint Parliamentary Committee and the decision of that body. An initial contribution of Rs. 63 lakhs was fixed as payable to the Government of India by this Province to meet the deficit of the Central Government resulting from the complete separation of provincial and the central revenues. This contribution has been temporarily remitted for three years from 1922-23. The division of revenues between the central and provincial Governments under the Reforms Scheme has caused much adverse comment and the local Government have strenuously protested that their resources are insufficient to meet the costs of administration.

Important changes in the system of financial administration have also been introduced by the Government of India Act and the Devolution Rules, 1920; in particular the powers of the Finance Department in controlling expenditure have been placed on a statutory basis. A clear distinction has been made between non-voted and voted expenditure, demands for grants for the latter only requiring the assent of the Legislative Council of the province before expenditure can proceed.

Revenue Administration.

128. The unit of revenue administration is the District Collector, who is controlled by the Divisional Commissioner and in respect of excise and salt by the Commissioner of Excise and Salt. The revenue work of these officers is subject to the control of the Board of Revenue which, as reconstituted by Bengal Act II of 1913, consists of only one member, but the local Government is empowered to appoint an additional member, when necessary. The Board has one Secretary who is an officer of the Indian Civil Service. As a result of the reconstitution, all the branches of the Board's work which were formerly included in the Miscellaneous Revenue Department, together with some branches included in the Land Revenue Department, are now under the direct control of Government. Besides the general control over the revenue work of Commissioners and Collectors, the Board retains its jurisdiction over the following departments :—

Wards.
Government Estates.
Waste Lands.
Tauzi and Accounts.
Road and Public Works Cess.
Land Registration.
Certificate Procedure.
Revenue Sales.
Partition.
Miscellaneous (minor matters such as escheats, etc.).

Except in a few instances where the law has since been amended, the Board has retained its former statutory powers and still continues to exercise full control and to discharge all the duties and functions conferred on it by various Acts of the legislature, statutory rules, notifications, etc., with reference to the land revenue and miscellaneous revenue administration of the Presidency. It has retained its appellate and revisional jurisdiction as the Highest Revenue Court of the Presidency and the authority vested in it to hear appeals from Government servants.

The main sources of revenue in Bengal are the land revenue, the excise on spirits and drugs, the customs duties, stamps, salt, income-tax, and the public works cess. Of these land revenue, stamps and excise are managed by the District Collector assisted in respect of land revenue and stamps by his ordinary district staff and in respect of excise by the separate establishment of the Department of Excise and Salt, the executive control of which rests with the Commissioner of Excise and Salt. Arrangements are at present being made to establish a separate and independently staffed Income-Tax Department and when these have been completed, the District Collector and his establishments will be relieved of work connected

with income-tax administration. The public works cess is levied conjointly with the road cess by the District Collector by means of an establishment which is paid for by a contribution levied on the combined receipts but the revenue derived from public works cess is now credited to the funds of the District Boards. Customs revenue is under a special department. Opium is not grown in the Presidency; but Calcutta is a depôt for the distribution of excise opium and for the sale and export of provision opium. This work was formerly supervised by the Board but is now under the direct control of the local Government.

Customs. Establishments.

The Calcutta Custom House is in charge of a Collector of Customs assisted by about six Assistant Collectors; all of these officers are members of the Imperial Customs Service. They direct the work of a considerable staff including appraisers, preventive officers and clerks, together with launch and boat crews and other servants. The import duties, which were reimposed in 1894, have since been increased from time to time, and the latest amendment of the tariff, which was made in March 1922, raised the general rate of duty to 15 per cent. *ad valorem*, cotton piece-goods paying 11 per cent., iron and steel and railway plant 10 per cent., cotton yarn 5 per cent., and machinery 2½ per cent., while above the general scale come the special duties on liquors, tobacco, sugar and a list of items including motor cars and luxury goods which are assessed at 30 per cent. *ad valorem*. For many years the only export duty was that on rice, but during and after the war, export duties were imposed on three commodities which enter very largely into the trade of Calcutta and for which Calcutta is the principal port of shipment in India, namely, jute and jute-goods, tea, and raw hides and skins. In 1921-22 the total value of the export of these commodities together with rice amounted to more than two-thirds of the total trade carried from this port. In addition to these taxes, the Custom House collects under special Acts a jute cess on behalf of the Calcutta Improvement Trust and cesses on shipments of tea, indigo and shellac on behalf of the organizations for furthering the interests of the producing industries.

The only other port of any importance in Bengal is Chittagong, where the Custom House is in the charge of a Collector, whose status in the Imperial Customs Service is that of an Assistant Collector, the Chief Customs Officer being the Commissioner of the Chittagong Division.

Formerly the Board of Revenue, Bengal, used to administer the Customs Department, but from the 1st August 1912, the Board lost its administrative functions, though it continued to exercise its statutory powers as Chief Customs Authority under the Sea Customs Act, 1878. From this date the department came under the direct administration of the local Government.

Under the Reforms Scheme, Customs, which is one of the sources of all-India revenues, has become a central subject, and the local Government exercise control as the agent of the Government of India.

Department of Public Works.

129. Several administrative changes have occurred in the Public Works Department since 1912. During the period 1912-13 to 1919-20, the Public Works Department dealt with matters connected with Roads and Buildings, Waterways, Miscellaneous Public Improvements, Irrigation, Marine, and Railways and other miscellaneous subjects connected with public works. The Department was under the control of a Member of the Governor's Executive Council. In the year 1921 the work connected with Marine subjects and with the Indian Electricity Act was transferred to the control of the Commerce Department. With the introduction of the system of Government under the Reforms Scheme in the beginning of the year 1921 certain of the subjects referred to above have become reserved and have been placed under the control of a Member of the Governor's Executive Council, while others have been transferred to the control of a Minister acting with the Governor. Thus subjects connected with irrigation and inland waterways are now "reserved," while public works connected with buildings, communications, tramways and light and feeder railways have become "transferred" subjects.

Agreeably to the orders of His Majesty's Secretary of State for India the Irrigation Branch was separated from the Public Works Department

and constituted as a separate department with effect from the 1st December 1921. Prior to separation, the Public Works Department with the two branches, Roads and Buildings and Irrigation, had the services of a joint establishment consisting of two Chief Engineers who were Secretaries to Government in their respective branches, two Under-Secretaries, one Assistant Secretary, five Superintending Engineers, 33 Executive and Assistant Executive Engineers, 65 Assistant Engineers and 226 Upper and Lower Subordinates. Since the separation, the Public Works Department, as now constituted, consists of a Chief Engineer, who is also Secretary to Government, a Personal Assistant, who is an officer of the Engineering Service, an Assistant Secretary, four Superintending Engineers and Subordinates in respect of whom the cadre has not yet been finally determined. In addition an Architect and two Assistants and an Electrical Engineer and an Electrician, a Plumbing Expert and a Superintendent for the Governor's Estates are employed.

Superintending Engineers are Inspectors of Works of the District Boards within their respective charges, by appointment under the Bengal Local Self-Government Act.

The circles of superintendence and the executive divisions of the Public Works Department as now constituted are:—

(1) The Presidency Circle, comprising the 1st, 2nd and 3rd Calcutta Divisions, the Electrical Division and local works in the districts of Howrah and the 24-Parganas.

(2) The Northern Circle, comprising the Darjeeling, Rajshahi, Jalpaiguri and Duars Roads Divisions and local works in the districts of the Rajshahi Commissioner's Division.

(3) The Eastern Circle comprising the Dacca, Bakarganj and Chittagong Divisions and local works in the districts of the Dacca and Chittagong Commissioners' Divisions and in the districts of Khulna and Jessore.

(4) The Central Circle, comprising the Burdwan and Hijili Divisions and local works in the districts of the Presidency and Burdwan Commissioners' Divisions, excepting the districts of the 24-Parganas, Jessore, Khulna and Howrah.

Communications.

130. In Bengal the roads forming main lines of communication are classed partly as provincial and partly as district roads. Provincial roads are maintained from provincial revenues, they are in charge generally of the Public Works Department and in some cases are under the District Boards. The district roads are maintained from local funds and are under the control of District Boards. A progressive scheme to extend over a number of years for the development and improvement of road communcations in the Western Duars, district Jalpaiguri, has been recently initiated. Those roads which are required in the interests of the general administration of the district and for the purpose of opening up tea gardens and forests will be a charge against provincial revenues, while the less important roads will continue as local communications under the control of the District Board.

Railways.

131. With the exception of certain light railways the more important lines of railway in the Presidency are under the direct control of the Government of India in the Railway Department and the local Government in the Public Works Department exercises agency functions only. The light railways are as follows:—

	Miles.
(1) Darjeeling-Himalayan Railway	51·00
(2) Bengal Provincial Railway (Tarkeswar-Tribeni)	33·27
(3) Howrah-Amta Light Railway	43·87
(4) Howrah Sheakhalla Light Railway	19·75
(5) Baraset-Basirhat Light Railway	52·24
(6) Jessore-Jhenidah Railway	36·75

These railways have adopted the provisions of certain sections of the Indian Railways Act, but are in some respects under the control of the Government of Bengal.

During the period, 1912—1922, the following lines of railways were opened to traffic in the Presidency :—

Standard (5' 6") gauge.

	Miles.
Hooghly-Katwa Railway	64·81
Barharwa-Azimganj-Katwa Railway	101·47
The Lower Ganges (Hardinge) Bridge (Bhairamara to Ishurdi Junction)	10·52
Sara (Ishurdi) Santahar Extension of the Eastern Bengal Railway ...	48·52
Sara (Ishurdi) Serajganj Railway	53·12
Burdwan-Howrah Chord of the East Indian Railway	45·26

Metre (3' 3⅜") gauge.

	Miles.
Rajabhatkhawa-Dalsingpara branch of the Eastern Bengal Railway ...	17·52
Singhjani Fulchari Extension of the Eastern Bengal Railway including the Kandirpara Ghat line	30·46
Bhairab Bazar-Tangi Branch of the Assam Bengal Railway ...	41·32
Mymensingh-Bhairab Bazar Railway	101·10
Chalsa-Matelli Branch of the Bengal Duars Railway	5·31

2' 6" gauge.

	Miles.
Jessore-Jhenidah Railway	36·75
Burdwan-Katwa Railway	32·52
Ahmedpur-Katwa Railway	32·26
Kalighat-Fulta Railway	25·33
Bankura-Damodar River Railway	59·95
Dasghara-Jamalpurganj Branch of the Bengal Provincial Railway ...	8·31
Khulna-Bagerhat Railway	19·66

2' 0" gauge.

Darjeeling-Himalayan Railway extension:—

	Miles.
Siliguri-Kissengunge	66·35
Siliguri Teesta Valley	29·09

Department of Irrigation.

132. The Irrigation Department, as constituted in December 1921, now deals with matters relating to irrigation, floods, regulation and training both of tidal and non-tidal rivers, anti-malarial and sanitary drainage and navigation in opened and closed canals by boats and inland steamers.

In terms of the Secretary of State's order the Irrigation Department should consist of four circles of superintendence and twelve divisions, but owing to financial difficulties it has not been possible to give full effect to these provisions. The Irrigation Department, as at present constituted, consists of two circles and six subdivisions only. The Department consists of a Chief Engineer, who is also Secretary to Government, a Personal Assistant, who is an officer of the Engineer Service, an Assistant Secretary, 2 Superintending Engineers, 18 Executive and Assistant Executive Engineers, 13 Assistant Engineers and 87 Subordinates. The Chief Engineer of the Grand Trunk Canal project and his staff are also under the administrative control of the Irrigation Department.

The circles of superintendence and the executive divisions of the Irrigation Department, as now constituted, are:—

(1) The South-Western Circle, consisting of the Cossye, Damodar, Nadia Rivers and Midnapore Revenue Divisions.

(2) The Southern Circle, consisting of the Canals, Jessore Drainage, and Khulna Divisions.

The major irrigation works in Bengal are the Midnapore and Hijli Tidal Canals. These works comprise 119½ miles of main and branch canals of which 69¾ miles provide for both irrigation and navigation and 49¾ miles (the Hijli Tidal Canal) for navigation only. There are in addition 285 miles of distributaries. The area irrigated is about 85,000 acres and the capital outlay on these works up to the end of March 1922 amounted to over Rs. 111 lakhs. The Midnapore Canal system is under the control of the Superintending Engineer, South-Western Circle, assisted by an Executive Engineer who is responsible for the maintenance of the canal and the conduct of irrigation operations. There is a separate establishment known as the Revenue Division for the collection of irrigation revenue. The division is in charge of a zilladar who is responsible for the assessment and collection of water rates. The principal crop for which irrigation is utilized is rice: occasionally *boro* rice is irrigated in the winter season when the principal rice crop has failed. Various systems of leases for the supply of water are in force. Most of the leases are granted for a term of seven years at an annual rate of Rs. 2 per acre. The area irrigated is divided into blocks, the leases of all lands in each block being arranged to lapse in the same year. Under the forms of irrigation lease in use no specific supply of water is promised, but the undertaking is to give such a supply to each lessee as may be necessary for the lands leased. Water is supplied by rotation, whenever this is considered advisable for the efficient working of the canal.

Irrigation is also carried on to a certain extent from the Eden Canal which lies partly in the district of Hooghly and partly in the district of Burdwan. This canal which was originally constructed for sanitary reasons, irrigates an area of about 21,000 acres. An Executive Engineer under the control of the Superintending Engineer, South-Western Circle, is in charge of the canal and is responsible for its maintenance and the conduct of irrigation operations. There is, however, no separate establishment for the collection of irrigation revenue. Water rates are realized by the Sectional Canal Officers who also carry out the duties of zilladars under the control of the Executive Engineer.

The principal navigation works maintained are—(1) the Calcutta and Eastern Canals, including Tolly's Nala and the Sundarbans Steamer Route, (2) the Madaripur Bil Route, (3) the Nadia rivers, and (4) a portion of the Orissa Coast Canal. Besides these, the Grand Trunk Canal was commenced in 1920-21 but work in connection with it has since been held in abeyance. The Calcutta and Eastern Canals are a series of navigable channels mostly natural but partly artificial, by which communication is maintained between Calcutta and Eastern Bengal, through the Sundarbans. The Madaripur Bil Route connects the Madhumati and Kumar rivers. These two canals are in charge of two Executive Engineers who are *ex officio* supervisors of the canals and collectors of tolls. The Executive Engineer at Berhampore is *ex officio* the supervisor of the Nadia river and collector of tolls. The Executive Engineer at Midnapore is *ex officio* supervisor of the Orissa Coast Canal.

The principal drainage works are the Dankuni, Howrah and Rajapur including the Barajolla drainage projects which were carried out under the provisions of the old Drainage Act V (B.C.) of 1871 (the Hooghly and Burdwan Drainage Act) and the Bengal Drainage Act VI of 1880. The maintenance charges of all these works were capitalized and included in the capital cost of the projects payable by the persons benefited. As a result, the responsibility of maintaining these works in perpetuity rests upon Government. The Dankuni and Rajapur Drainage works are also used as navigable channels under the provisions of the Bengal Canals Act V of 1864 and tolls are levied. The Magra Hât Drainage scheme which provides for the improvement of the sanitary and agricultural condition of a tract of 290 square miles in the Diamond Harbour Subdivision of the 24-Parganas district has been completed at a cost of about 21 lakhs under the

provisions of the Bengal Sanitary Drainage Act VIII of 1895. Government contributed 5 lakhs towards the cost and has undertaken the maintenance charges in return for any income derivable from the scheme including tolls levied on the drainage channels under the Canals Act. The Arul Bil Drainage scheme, the Nowi Sunthee Drainage scheme, the Jaboona project and the Amta Drainage project have been undertaken as anti-malarial works under the new Agricultural and the Sanitary Improvement Act, 1920, Government contributing a portion of the cost. All these works were commenced under the provisions of the old Sanitary Drainage Act VIII of 1895. Besides the irrigation, navigation and drainage works Government maintains about 1,344 miles of embankments.

The Standing Waterways Committee, appointed in 1906, to inspect periodically the natural and artificial waterways between Calcutta and Eastern Bengal and to suggest measures of improvement, was enlarged and strengthened in 1911 and again in 1912. This committee discussed the question of the formation of a Waterways Trust in 1914 and again in 1917 but no final decision was reached. The idea of a Waterways Trust was at last abandoned in 1918. The Standing Waterways Committee was further enlarged and strengthened in 1920 with the title "The Standing Waterways Advisory Committee" by making it possible to have extra provincial representatives. The functions of this committee are to advise on—(*a*) the maintenance and improvement of waterways, more specially the Ganges, Brahmaputra, Meghna group of waterways which connect Bengal with Bihar and Orissa on the one side, and with Assam on the other, and (*b*) the regulation of traffic on these waterways. Another committee was formed in 1920, *viz.*, a permanent Board whose duty it is to examine all important projects concerning either drainage, irrigation, sanitation or transport (by rail, road or waterways) which are likely to restrict the free flow of floodwater, and to report to Government in the department concerned before such projects are sanctioned.

Marine Department.

133. The Marine Department is now an independent department of Government and is no longer under the control of the Public Works Department. Under the Reforms Scheme the port of Calcutta has been declared a major port and the receipts and expenditure connected with the port are included in the Central Government's budget. The Port Officer, Calcutta, remains the principal executive officer of the Marine Department. He discharges the duties of Shipping Master, controls the Bengal Pilot Service and is mainly responsible for the Working of the Merchant Shipping Acts. The management of the affairs of the port of Calcutta is vested in a body of Commissioners. They have also been appointed as Conservators of the port. With a view to enable the Port Commissioners to exercise better control over the navigable channels leading to the port and to remove certain public grievances in regard to the Port Commissioners' ferry service the northern limit of the port of Calcutta was extended up to Panihati in January 1921. A scheme for the lighting of the river Hooghly between Mud Point and Saugor for the purpose of navigation was completed by the Port Commissioners and the restrictions against night navigation were partially removed for outward bound vessels in 1915. The restrictions were entirely removed for both inward and outward bound ships in 1918. In the year 1913 a committee was appointed to investigate the existing facilities and the present and future requirements of the port of Calcutta. Certain capital works including the extension of the Docks, involving an expenditure then estimated at nearly 4½ crores of rupees (but likely to be considerably exceeded) were recommended by the committee in order to provide for the rapidly expanding trade of the port. The programme of works had the approval of the Government of India and is being carried out. Under the orders of the Government of India the Royal Indian Marine Dockyard at Kidderpore was closed in the latter part of the year 1920. The Calcutta Port Act 1890 was amended in 1920 so as to provide for the appointment of a full-time salaried Chairman and a salaried Deputy Chairman of the Port Trust.

The affairs of the port of Chittagong are administered by the Port Commissioners appointed under the Chittagong Port Act, 1914. This

port has not been declared a major port; hence the responsibility for its administration and financial control rests with the Government of Bengal. The financial position of the port continues to be unsatisfactory and the limited resources of the local Government preclude it from initiating schemes of development which are necessary if Chittagong is to become a regular port of call for deep draft vessels.

Smoke Nuisances Commission and Steam Boilers Commission.

134. Since its appointment in 1906, the Bengal Smoke Nuisances Commission has consisted of seven members (including the *ex-officio* Secretary) with an inspecting staff of one Chief and one Assistant Inspector. In July 1912, the time limits for smoke emission which had been in force since 1907 were curtailed, and the provisions of the Act were extended to all the areas within the local limits of Tollygunge, Garden Reach, and South Suburban Municipalities. In April 1913, the appointment of a second Assistant Inspector was sanctioned, owing to the increase of work due to the extension of area. In the same year a scheme of examination for the grant of certificates of competency as stokers was inaugurated by the Commission. In April 1916, the Act was amended to include many classes of furnaces that had been uncontrolled. This facilitated the work of the Commission in several ways, and by virtue of the amended law two new members—one representing the Calcutta Corporation and the other representing the Port Commissioners—were added to the Commission, thereby securing for the first time a majority of non-officials in the Commission. In November 1916, rules were framed under the amended Act by which the two hours' exemption hitherto allowed to all ocean-going steamers for emitting offensive smoke prior to their leaving moorings was abolished. At the same time power was also given to control installations so that no old installations could be altered nor any new one put down unless in accordance with plans previously approved by the Commission. This marked the beginning of the end of badly-designed and wasteful furnaces that were a worry to the owners and a source of danger and trouble to public health and property. In July 1917, the Act was extended to Panchpara principally to deal with the lime-kilns, the smoke from which had been the subject of complaints from the Pilot Service as being a danger to navigation of the river. The area controlled by the Commission is at present 68 square miles. In July 1920, the administration of this department was transferred from the Marine Department to the Commerce Department and then from the latter to the Director of Industries, but was retransferred to the Commerce Department in 1922. In the same year the services of the Inspectors were declared by the Secretary of State to be pensionable. The success of the department may be judged from th reduction of smoke effected. In 1906, the average emission of controlled smoke was the equivalent of 13 minutes of dense black smoke in the hour. In 1920, it was reduced to 1·22 minutes in the hour, a reduction of 90 per cent. Since then owing to the inspecting staff being below the sanctioned strength the average emission has increased from 1·22 to 1·6 minutes in the hour.

The control of the Boiler Fund was transferred from the Marine to the Commerce Department in the year 1920-21, and from the latter to the Director of Industries, Bengal, but was retransferred to the Commerce Department in 1922-23. The Act has been extended to the districts of Pabna, Nadia, Burdwan, and Midnapore. Its extension to the districts in which it is not yet in force will, it is anticipated take place automatically when the new India boilers to be inspected, consequent on the extension of the Act to new areas and the importation of new boilers, three additional Inspectors have been appointed. A Chief Inspector of Boilers was also appointed in February 1920 for the better supervision of the work of the Inspectors. He acts as Secretary to the Commission.

Medical Department.

135. The Medical Department is managed by the Surgeon-General with the Government of Bengal, whose appointment is subject to the approval of the Government of India. The medical staff consists of Civil Surgeons, the majority of whom belong to the Indian Medical Service, Civil Assistant Surgeons, and Sub-Assistant Surgeons. There are lunatic asylums at Berhampur and Dacca and an observation ward at Berhampur. All European lunatics of the province are now treated at the Ranchi European Mental

Hospital. There is a Government asylum for lepers at Gobra in Calcutta. Government recognizes the necessity of segregating persons suffering from this terrible disease and a scheme has been prepared for the establishment on a large scale of a leper colony in Midnapore district. Land has been acquired with funds given by an anonymous donor.

Sanitation and Vaccination Departments.

136. The Sanitation and Vaccination Departments are now included in the recently-created Department of Public Health which is under the control of the Provincial Sanitary Commissioner now called the Director of Public Health. Recognizing the need of a thorough-going reorganization of the Sanitary Department, Government in 1919 appointed a Committee to enquire generally into the organization responsible for the supervision of public health in the Presidency and to advise in detail as to the lines on which it should be improved and reorganized with a view to present demands and future requirements. In pursuance of the recommendations of the Committee the present Department of Public Health was formed, consisting of two branches, viz., the statistical, preventive and epidemiological side under the Director of Public Health, and the sanitary engineering branch under the Chief Engineer, Public Health Department. The previous organization under which certain Deputy Sanitary Commissioners with a local jurisdiction were employed mainly on the supervision of public health work in municipalities was replaced to a large extent by a system of bureaux. The divisional staff was retained as a general local inspectorate, but greater prominence was given to the statistical and epidemiological side of public health work which was organized under special officers located in Calcutta. There are now seven Assistant Directors of Public Health, all possessing the diploma of Public Health and working under the Director of Public Health. Of these, four are in charge of the four divisions into which the province has been divided, one is concerned with School Hygiene, another is in charge of Vital Statistics and Vaccination, and another is concerned exclusively with Malaria. In addition, an Assistant Director of Public Health for Industrial Hygiene has been temporarily appointed for the purpose of investigating "occupational diseases" securing good hygienic conditions in factories and dealing with such common factory defects as dust, dampness, effluvia, etc. Another temporary post has been created for systematic investigation and research on the subject of kala-azar. Nine of these appointments are now reserved for the Indian Medical Service and all the Assistant Directors are Indians. A new post was created in 1921, that of the Director of the Public Health Laboratory in Calcutta, and is held at present by a member of the Indian Medical Service.

The sanitary administration of the Port of Calcutta is now under the supervision of the Director of Public Health. Besides the Port Health Officers at Calcutta and Chittagong there are three Assistant Port Health Officers at Calcutta.

In 1914, the Sanitary Officers' (Municipal) Act of 1914 was passed, under the provisions of which, the appointment of Sanitary Inspectors and Health Officers in municipal towns is now a statutory obligation. The decision of Government to enforce the provisions of section 91 (4) of the Local Self-Government Act of 1885 is also an important landmark in the history of sanitary administration in Bengal. Almost all the District Boards in Bengal have now appointed a District Health Officer and there are clear indications that the public are more and more realizing the paramount importance of public health work.

Sanitary Board and the Engineering Branch of the Public Health Department.

The Provincial Malaria Committee.

137. Since its reconstitution in 1908, the Sanitary Board has been strengthened by the addition of three non-official members in November 1913. In 1917, it was felt that the Provincial Malaria Committee (constituted in 1910 for the systematic examination of problems connected with the prevalence of malaria) was not doing useful work and that it was overshadowed by the Sanitary Board. It was agreed that the two separate bodies dealt with much the same problems and a proposal was made for their amalgamation and reorganisation as an enlarged Sanitary Board. Accordingly in October 1917, Government constituted an enlarged Sanitary Board and

appointed to it the members of the existing Sanitary Board and the Malaria Committee. The Member of the Board of Revenue was appointed as the President *ex officio*, the Surgeon-General with the Government of Bengal as Vice-President, *ex officio*, and the Sanitary Commissioner and the Sanitary Engineer were appointed as members and joint secretaries, the duties of the former being confined to proceedings connected with non-engineering questions relating to malaria and general sanitation. The functions of the new Sanitary Board were of an advisory character.

On the introduction of the Reforms, the Sanitary Board was reconstituted in June 1921, and now consists of 12 members, four of whom are members, *ex officio*, while the Secretary, Local Self-Government Department, is *ex-officio* President. Two of the non-official members are registered medical practitioners nominated by the Bengal Council of Medical Registration and the Governing Body of the Bengal State Medical Faculty. The members hold office for one year.

The duties of the new Sanitary Board were thus prescribed :—

> "It will advise the Government of Bengal (Ministry of Local Self-Government) in all matters relating to the public health of Bengal. It will adivse on the soundness and suitability of schemes of water-supply, sewerage and drainage (anti-malarial and others) submitted by local bodies, but it will not be expected to deal with engineering details. The Board will recommend to Government the order in which projects of sanitary and anti-malarial engineering should be taken up, and the grants and loans to be made for such schemes. It will also advise as to the promotion of researches and investigation into the prevalence of infectious, communicable and preventible human diseases, and the measures to be taken for their prevention, limitation, and suppression. It will report to Government on all matters referred to it and will also be free to make recommendations to Government *suo motu* on any question of public health concerning the people of Bengal."

In the Engineering branch of the Public Health Department, besides the Chief Engineer, there are at present five Executive Engineers, these appointments having recently been sanctioned by the Secretary of State. These officers are assisted by a subordinate staff consisting of Assistant Engineers and other temporary officers. The Chief Engineer, Public Health, and his staff for some years past have designed and executed all major water-supply and drainage projects for municipalities in the mufassal.

Police.

138. The Police Department is supervised by an Inspector-General, who is ordinarily a member of the Imperial Police Service. Under him there are Deputy Inspectors-General, Superintendents, Assistant Superintendents, Deputy Superintendents and a large staff of subordinate officers. The Police force of the province comprises the military, district, railway and river police. The military police form an armed reserve to deal with serious and organized disturbances that may arise. The railway police are under the control of the Range Deputy Inspectors-General with Superintendents of Police for the principal railway systems. The Criminal Investigation Department is especially concerned with professional and political crime. To the district police is entrusted the detection of ordinary crime and the maintenance of law and order. In each district the police are in charge of a Superintendent, and the districts are grouped into ranges, each under the direct control of a Deputy Inspector-General. Outside the regular police are the rural police-chaukidars and daffadars, who are responsible for reporting to the police the occurrence of crime and births and deaths within their villages, and assist in the prevention and detection of crime generally. They are paid a small salary, which is collected from the villagers by the chaukidari panchayat or by union boards where such boards have been established under the Village Self-Government Act.

Agriculture.

139. The Department of Agriculture was separated from that of Land Records in 1906, when the former department, as it is now known, was organized by Lord Curzon. A staff of expert officers was recruited in Europe for each province including Bengal and Eastern Bengal. At the repartition in 1912, the old Bengal staff reverted to the new province of Bihar, while the officers from Eastern Bengal were attached to the newly-formed Presidency of Bengal. The Director of Agriculture was at first invariably a senior member of the Indian Civil Service but of late years, the Directors have been selected from the members of the Agricultural Service. Much work has been done by the Department of Agriculture since its formation. Experimental and demonstration farms have been established in various places and the department distributes seeds, manures, and agricultural implements, arranges schemes of agricultural education, affords district agricultural associations financial assistance and expert advice, and is responsible for the preparation of the weekly weather and crop and rainfall statistics. About 100,000 acres of pure races of paddy and over 150,000 acres of improved jute from seed originally supplied by the Department of Agriculture are now annually grown in Bengal and the cultivation of jute has also spread on a large scale into the neighbouring provinces of Bihar and Assam. Important investigations have also been conducted by the Department with a view to improve the sugarcane crop and to develop sericulture in the silk districts on scientific lines.

The personnel of the department has been considerably strengthened and now includes—

10 officers of the Imperial Agricultural Service.
15 officers of the Provincial Agricultural Service.
93 officers of the Upper Subordinate (Class I) Agricultural Service.
29 officers of the Upper Subordinate (Class II) Agricultural Service.
179 officers of the Lower Subordinate Agricultural Service.

Fisheries.

140. In 1910 a permanent Fishery Department was organized under the control of the Director of Agriculture, and even after the reconstitution of the province in 1912, the Bengal staff continued their activities in the new province of Bihar and Orissa. The Fishery Department was separated from the Department of Agriculture in 1917 and was placed under a Director of Fisheries for Bengal, Bihar and Orissa. Since 1919, District Fishery Officers have been appointed in certain districts. But the development of the department received a serious set-back from the departure of the European expert, Mr. Southwell, on leave, and his subsequent resignation on account of ill-health in 1920. The department was then replaced in charge of the Director of Agriculture, Bengal, pending the appointment of an expert as Director. In April 1921, the Bihar and Orissa Government decided to establish a separate Fishery Department for that province. The present strength of the department is two superintendents, two zoological assistants and four district fishery officers.

Civil Veterinary Department.

141. The department is controlled by a Superintendent, who is also the Veterinary Advisor to Government, assisted by a staff of Deputy Superintendents, Inspectors and Veterinary Assistants. It is hoped that eventually the province will be equipped with one itinerant veterinary assistant in each subdivision and one veterinary dispensary with a stationary veterinary assistant at each district and subdivisional headquarters.

Co-operative Societies.

142. The superior staff of the department consists of one Registrar, one Deputy Registrar, one Personal Assistant to the Registrar, four Assistant Registrars, one Chief Auditor, and two Divisional Auditors. Besides these, there are 66 Inspectors of whom 14 are Sub-Deputy Collectors and 40 Auditors. The pay of these Auditors is met by the levy of audit cess on all societies more than 18 months old. The department has not only to audit the accounts of the societies and inspect them, but also to familiarize the people with the principles of co-operation and to assist them in organizing new societies.

On the 30th June 1922, there were 6,679 co-operative societies, 1 provincial bank, 73 central banks, 6,146 agricultural societies, 453 non-agricultural societies, and 6 supervisional and guaranteeing unions. The membership of these societies was 260,412 and their working capital Rs. 3,68,68,175, while the reserve funds accumulated by them amounted to Rs. 31,44,923. The Provincial Bank which was registered under the title of "The Bengal Provincial Co-operative Federation, Limited," has made steady progress. The membership is 77 and the working capital is now over 25 lakhs and share capital 3·14 lakhs. The public has great confidence in the Federation and the societies and central banks are freely investing their funds in it. Besides credit societies great progress has been made in the formation of following classes of societies:—

(1) Purchase and Sale Societies.
(2) Irrigation Societies.
(3) Co-operative Agricultural Associations.
(4) Production and Sale Societies.
(5) Anti-malarial Societies.

There is an information bureau attached to the office of the Registrar which collects information about the price of different articles in Calcutta, issues biweekly bulletins of prices to the industrial co-operative societies and endeavours to obtain supplies for the societies in the mufassal at advantageous rates from Calcutta and to popularize the products of these societies in the market. The Bengal Co-operative Organization Society was started in 1918 on the model of the Irish Agricultural Organization Society. Its chief activities have been the publication of the two journals—*The Bengal, Bihar and Orissa Co-operative Journal* in English and the *Bhandar* in Bengali—the organization of public lectures for the benefit of students and the educated classes, and the grant of assistance to Social Service League workers for lectures in villages.

Excise and salt.

143. The Department of Excise and Salt is controlled by a Commissioner with a suitable staff of assistants, under the general direction of Government.

Land Records.

144. The chief function of the Director of Land Records is the supervision of survey and settlement operations.

Registration.

145. Registration is a transferred subject under the Reforms Scheme. The department is supervised by an Inspector-General. Whole-time (or departmental) District Registrars were appointed in three districts in 1919 on the Madras system, while in other districts, District Magistrates or Additional District Magistrates hold this office. The departmental District Registrar system has not justified itself and the experiment is to be discontinued.

Jails.

146. There are 5 central jails, 24 district jails including one juvenile jail, and 58 subsidiary jails. All the central jails, except Rajshahi, are managed by whole-time Superintendents, the district jails by the chief medical officers of the districts, and the subsidiary jails by the subdivisional officers. The control of the whole department is vested in the Inspector-General of Prisons.

Education.

147. The Education Department is under the control of the Minister of Education and its chief executive officer is styled the Director of Public Instruction. The working of the department is fully described in the chapter "General System of Public Instruction."

Forests.

148. For the purposes of forest administration the province is divided into eight divisions under the general superintendence of the Conservator of Forests.

Administrative staff.

149. The following is a list of the principal officers who were employed on the 31st March 1922 in the executive administration of the country in the administration of justice, in the ordinary duties connected with the

collection of the revenue, and in the chief offices of the Police, Customs, Education, Registration, and other departments :—

Officers at the Presidency.

The Governor	1
Governor's personal staff	10
Members of the Executive Council ...	4
Ministers	3
Member of the Board of Revenue ...	1
Chief Secretary, Secretaries, Deputy Secretaries, Under-Secretaries, Assistant Secretaries	20
Secretary, Board of Revenue	1
Registrars, Bengal Secretariat	5
Lord Bishop of Calcutta	1
Archdeacon of Calcutta	1
Chief Justice and Judges of the High Court	18
Registrars of the High Court	2
Superintendent and Remembrancer of Legal Affairs	1
Judges of the Small Cause Court and Registrar	9
Presidency Magistrates, Calcutta ...	5
Municipal Magistrates, Calcutta ...	2
Commissioner of Excise and Salt ...	1
Registrar, Co-operative Secieties ...	1
Accountant-General, Deputy Accountant General and Assistant Accountant-Generals	8
Superintendent of Government Printing ...	1
Commissioner, Presidency Division ...	1
Collector of Stamp Revenue, Calcutta ...	1
Deputy Collector of Land Revenue ...	1
Commissioner of Income Tax ...	1
Assistant Commissioners of Income Tax ...	4
Probate Deputy Collector, Calcutta ...	1
Chairman and Deputy Chairman, Calcutta Corporation	2
Inspector-General of Police	1
Deputy Inspectors-General of Police ...	3
Commissioner of Police, Calcutta ...	1
Deputy Commissioners of Police, Calcutta ...	7
Assistant Commissioners of Police, Calcutta	13
Chairman, Board of Trustees for the Improvement of Calcutta	1
Land Acquisition Officers, Calcutta ...	1
Inspector-General of Prisons	1
Superintendent of the Alipore Central Jail and *ex-officio* Deputy Inspector-General of Prisons	1
Surgeon-General with the Government of Bengal	1
Principal, Professors, Residents, Physicians and Surgeons, Medical College ...	35
Consulting Architect	1
Chief Engineer, Public Health Department, and officers attached to the department	3
Director of Public Health and Assistant Directors of Public Health	9
Protector of Emigrants and Superintendent of Emigration	1
Superintendent, Royal Botanic Garden ...	1
Director of Public Instruction ...	1
Assistant Directors of Public Instruction	2
District Deputy Inspectors. Inspectors, Additional and Assistant Inspectors of Schools	8
Principals and Professors of the Presidency College, Sanskrit College and Madrassah	43
Port Officer, Calcutta	1
Meteorologist	1
Director of Industries	1
Inspector-General of Registration ...	1
Inspector of Registration Offices ...	1
Registrar of Calcutta	1
Superintending and Executive Engineers ...	10
Coroner of Calcutta	1
Principal, School of Art	1
Superintendent of Industries	1
Chief Inspector of Factories	1
Chief Inspector of Boiler Commission ...	1
Labour Intelligence Officer	1
Bengali Translator to Government ...	1
Registrar and Assistant Registrar, Joint Stock Companies	2

Officers outside Calcutta.

Commissioners of Divisions	4
District and Additional Sessions Judges ...	40
Magistrates and Collectors and Additional Magistrates	38
Cantonment Magistrate	1
Deputy Inspectors-General of Police ...	4
Superintendents of Police	38
Assistant Superintendents of Police ...	27
Deputy Superintendents of Police ...	21
Civil Surgeons	27
Superintendents of Central Jails ...	4
Deputy Magistrates and Deputy Collectors	272
Sub-Deputy Collectors	329
Subordinate Judges and Judges of the Small Causes Court	57
Munsifs	297
Inspectors of Registration Offices ...	2
District Sub-Registrars	22
Sub-Registrars	457
Conservator of Forests	1
Deputy Conservators, Assistant Conservators and Extra Assistant Conservators ..	23
Director of Agriculture	1

Judicial organization.

150. The existing judicial organization of the Presidency consists of—

High Court Judges	16
District and Sessions Judges including the post of Superintendent and Remembrancer of Legal Affairs and ten Additional Judgeships	29

A temporary judgeship of the High Court has also been sanctioned up to the end of the year 1923-24. The functions of these officers are exclusively judicial and include both civil and criminal jurisdiction. The Chief Justice and six of the Puisne Judges of the High Court are English barristers. Five of the Judges are Indians, of whom two were barristers and three were distinguished vakils of the Court. The rest are members of the Indian Civil Service.

Criminal Administration.

151. Criminal justice is administered by the High Court, the Courts of Session, and the Courts of the various classes of Magistrates. The High Court on its Original side tries by a single Judge, with a jury, all cases committed to it by the Presidency Magistrates, and also certain cases in which the accused are European British subjects, which may be committed for trial by Magistrates in the interior. On its Appellate side, the High Court, by a bench of two or more Judges, disposes of appeals in respect of convictions on trials before a Court of Session. It revises of its own motion and upon reference from Sessions Judges or Magistrates the decisions of inferior courts, when in error upon points of law, and it confirms, modifies or annuls all sentences of death passed by Sessions Courts in the interior. The High Court also sits as a Special Bench to try cases committed to it under the Indian Criminal Law Amendment Act, XIV of 1908. The Courts of Session are presided over by a single Judge, who tries, with the aid either of a jury or assessors, all cases committed by Magistrates empowered to that end, and decides, sitting alone, all appeals from the decisions of Magistrates of the first class when the sentence exceeds one month's imprisonment or 50 rupees fine. The powers of a Sessions Judge are limited only by the amount of punishment which may be inflicted for the offence under the Penal Code, except that sentences of death are passed subject to confirmation by the High Court. The powers of a Magistrate of the first class extend to sentencing offenders to imprisonment, either rigorous or simple, up to two years, including solitary confinement; to fine to the extent of Rs. 1,000, or imprisonment and fine combined; also to whipping as a separate or additional punishment for certain offences. The Magistrate of the district always exercises first class powers, and he also hears appeals from the Magistrates of the second and third classes within the district. Any Magistrate of the first class, duly empowered by the local Government, can similarly hear and decide all such appeals. A Magistrate of the second class can award imprisonment up to six months, fine up to Rs. 200, or both, and also whipping as the sole or as an additional punishment, if specially empowered by the local Government. A Magistrate of the third class can only imprison up to one month, or fine up to Rs. 50, or combine these punishments. Honorary Magistrates, sitting singly, and Benches of Magistrates, consisting of two or more Magistrates, sitting together, have now been appointed at almost all the head-quarters stations and at most of the subdivisional stations in Bengal. Their powers vary in different localities. Under the provisions of the Criminal Procedure Code, Honorary Magistrates are ordinarily appointed for a term of three years, which is, however, renewable on the recommendation of the local officers. Under the provisions of the Village Self-Government Act of 1919 village tribunals known as union benches and union courts have been established in some rural areas. These consist of two or more members of a union board and are empowered to try certain specified petty criminal cases and also petty civil suits relating to property not exceeding Rs. 200 in value.

Civil Administration.

152. In respect of civil justice, the High Court of Calcutta exercises an appellate, a legal and equitable, an ecclesiastical, an admiralty and a bankruptcy jurisdiction. The functions which in England used to be divided among different courts are here exercised in one court and by the same

Judges. Below the High Court are the District and Additional Judges, the Small Cause Court and Subordinate Judges, and the Munsifs. Of these officers, the District and Additional Judges and a small number of Subordinate Judges, when appointed Assistant Sessions Judges, also exercise the powers of a Criminal Court; the remainder are purely Civil Judges.

The jurisdiction of a District Judge or Subordinate Judge extends to all original suits cognizable by the Civil Courts. It does not, however, include the powers of a Small Cause Court, unless these be specially conferred. The ordinary jurisdiction of a Munsif extends to all like suits in which the amount or value of the subject-matter in dispute does not exceed one thousand rupees, though the limit may be extended up to suits the value of which does not exceed two thousand rupees. An appeal lies from the High Court to the Privy Council in England, if the value or amount of the subject-matter exceeds ten thousand rupees. Appeals from the decrees and orders of District and Additional Judges lie to the High Court. Appeals from Subordinate Judges and Munsifs lie to the District Judge, except when the value of the subject-matter exceeds five thousand rupees, when the appeal lies to the High Court. The High Court, with the sanction of the Local Government, may also direct, by notification in the Gazette, that appeals from the orders of any Munsifs shall lie to the Court of the Subordinate Judge, but no such notification has been issued by the High Court. Ordinarily, the Subordinate Judges hear such appeals from the decisions of Munsifs as are transferred to them by the District Judge. The powers of Courts of Small Causes are regulated by Act IX of 1887 (as subsequently modified): subject to certain exceptions, their jurisdiction extends to all suits of a civil nature of which the value does not exceed five hundred rupees, a limit which may be increased to one thousand rupees by an order of the Local Government, with respect to any specified court. The Local Government is empowered under Act XII of 1887 to invest Subordinate Judges and Munsifs with the powers of a Judge of a Small Cause Court for the trial of cases not exceeding five hundred rupees in value in the case of Subordinate Judges, and two hundred and fifty rupees in the case of Munsifs. Under Act IX of 1887, the local Government may, with the previous sanction of the Governor-General in Council, establish a Court of Small Causes at any place in the province beyond the local limits of the ordinary original civil jurisdiction of the High Court. On the 31st March 1922, besides the regular Small Cause Courts which have been established at Sealdah, Howrah, Serampore, Dacca, and Munshiganj, there were 199 Munsifs invested with this power.

Mufassal Municipalities.

153. The system of municipal government in towns other than Calcutta is regulated by Bengal Act III of 1884 which has been amended by several amending Acts. Municipalities are divided into two main classes, those in which the Commissioners are all appointed by Government and others in which two-thirds are elected by the rate-payers and one-third are appointed by Government. The number of Commissioners, which cannot be less than nine or more than thirty, is fixed by Government. The main functions of these municipalities are—(*i*) the construction, upkeep, and lighting of streets and roads, and the provision and maintenance of public and municipal buildings, (*ii*) the preservation of public health—principally with reference to provision of medical relief—vaccination, sanitation and conservancy, drainage and water-supply, and maintenance of veterinary institutions, and (*iii*) education, particularly primary education. They may also establish and maintain free libraries, organize a fire-brigade, and provide for the training and employment of female medical practitioners and the promotion of physical culture. They are vested with powers of precaution in respect of ruined and dangerous houses and other erections, and also as regards the general regulation of new buildings. By the Bengal Municipal (Sanitary) Officers Act of 1914 power was taken by Government to insist on the employment by municipalities of a sanitary service. This was an important enactment, placing a new statutory obligation on municipalities, such as the English Public Health Act of 1872 introduced in England. Almost all the municipalities have at present either a trained Health Officer or a Sanitary Inspector or both.

The total number of municipalities at present in existence is 116, of which five were established during the last decade; of these only one is a new municipality, the others have been formed by the subdivision of previously existing municipalities. The privilege of electing two-thirds of the number of Commissioners and of their own Chairman is at present enjoyed by all the municipalities except four. Officials such as district magistrates and subdivisional officers are now prohibited from standing for election to the chairmanship. All municipalities have been given a free hand in framing their budgets according to their discretion, Commissioners of Divisions being required to see only that the law, statutory rules, and Government orders are complied with and that due provision is made for the necessary minimum closing balance and for the service of municipal loans. The municipal system has been most developed in the Presidency and Burdwan Divisions where no less than 78 municipalities are situated. The present Municipal Act has been in force for nearly 40 years and though still wide enough in its scope to meet the needs of many towns, it naturally fails to provide for several new developments in municipal administration, *e.g.*, the improvement of insanitary buildings and areas, the prevention of epidemic disease, control of the sale of food-stuffs, the improved registration of vital statistics, and child welfare. To remedy these defects and to remove legal difficulties and ambiguities which the working of the Act has brought to light, a consolidating Municipal Bill has been prepared and is now under the consideration of Government.

Calcutta Municipality.

154. The system of Municipal Government in Calcutta is regulated by Bengal Act III of 1899, which repealed Bengal Act II of 1888. Abandoning the policy followed in the previous Acts of vesting the entire Municipal Government of the city in the Commissioners with permission to the Chairman to exercise such powers as were not expressly reserved to the Commissioners in meeting, and subject to such conditions as the Commissioners may lay down, the Act created three co-ordinate Municipal authorities, viz., the Corporation, the General Committee, and the Chairman, and distributed between them the functions most appropriate to each. The entire executive power is vested in the Chairman to be exercised independently, or subject to the approval or sanction of the Corporation or General Committee, whereever this is expressly so directed. To the Corporation are reserved the right of fixing the rates of taxation and all those general functions which can be efficiently performed by a large body, provision being at the same time made against the contingency of their deliberations impeding the transaction of business. The General Committee stands between the deliberative and the executive authorities, and deals with those matters which by their nature are ill-adapted for discussion by the Corporation and yet are too important to be left to the disposal of the Chairman alone. The total number of Commissioners was reduced to 50, of whom 25 are elected at the ward elections and the rest appointed by Government, the Bengal Chamber of Commerce, the Calcutta Trades Association and the Commissioners for the Port of Calcutta. The General Committee consists of 12 Commissioners, one-third of whom are elected by the Ward Commissioners, an equal proportion by the appointed Commissioners, and the rest appointed by Government.

A marked feature of the last decade has been the progressive development of the system of Standing Committees. The Act does not expressly provide for such Committees, but the major portion of Corporation business is discussed in the numerous Committees of this character before being laid before the Corporation at its meeting. Moreover, official control has been relaxed by the removal of the Chairman's direct personal influence in Committee meetings as practically all the Standing Committees now meet under the presidency of a Municipal Commissioner. The views of the Chairman are laid before these Committees in notes or through the medium of discussion previous to a meeting between the Chairman and the President of the Committee. The constitution of the Corporation is to be still further liberalized under the new consolidating Bill which is at present before the Legislative Council. The Bill provides that the chief executive officer will cease to be a member of the Corporation although he will possess the right of audience.

In 1919 the control of the Public Vehicles Department was transferred from the Corporation to the Commissioner of Police by the Calcutta Hackney Carriage Act of 1919 which repealed the old Act of 1891. The Corporation has prepared a comprehensive programme for the discharge of its new obligations under the Bengal Primary Education Act, 1919, and a Primary Education Board, of which some educational officers are members, has been created. A municipal service of mid-wives and lady health-visitors has been organized. The post of City Architect, which was abolished some years ago, has been revived, mainly with the object of securing proper enforcement of the building regulations. In order to control and check the abnormal and excessive rise in rents during recent years which has been caused by the scarcity of housing accommodation in Calcutta, the Calcutta Rent Act (III B.C. of 1920) was passed, to remain in force for three years. The Act prescribes a standard rent for all premises, which is, generally speaking, 10 per cent. above the rent paid on 1st November, 1918. No increase above the standard rent is recoverable at law and no tenant can be ejected as long as he pays the standard rent. The Act applies to all premises let for residential purposes, for shops or for offices, and includes hostels and boarding-houses, but it does not apply to premises erected after, or in course of construction at the time of, its enactment. A Controller of Rents was appointed to administer the Act. A non-official Bill proposing to extend its application for another term of three years is now under the consideration of Government.

Calcutta Improvement Trust.

155. In accordance with the provisions of the Calcutta Improvement Act (Bengal Act V of 1911) a Board of Trustees was constituted in January 1912 and invested with special powers for carrying out the objects of the Act by opening up and improving insanitary and congested areas in Calcutta, laying out or altering streets, providing open spaces and arranging for the rehousing of the poorer classes displaced by the execution of improvement schemes. The Board consists of eleven members; the Chairman and four other members are appointed by Government, the Chairman of the Corporation is a trustee *ex-officio*, three members are representatives of the Corporation, one of the Bengal Chamber of Commerce and one of the Bengal National Chamber of Commerce. During the last ten years the Trust has carried through successfully an important and comprehensive programme of improvement work.

The necessity of vesting the Trust with powers, similar to those possessed by the Corporation, of preventing important schemes from interruption or obstruction by the erection of new buildings was realized soon after the Trust began its operations and the Calcutta Improvement Amendment Act (III B.C. of 1915) gave it authority to fix the alignment of projected public streets and to prohibit the erection of new buildings within the area of such alignment. The enactment, in the beginning of 1922, of another amending Act (I.B.C. of 1922) restored, in the case of land compulsorily acquired by the Trust, the 15 per cent. solatium which is payable under the ordinary Land Acquisition Act but which had been omitted from the Calcutta Improvement Act of 1911.

The question of extending the operations of the Trust to Howrah has been the subject of prolonged discussion. The Trustees have realized the urgent necessity of improving Howrah and of curtailing the evil growth and perpetuation on the west bank of the Hooghly of conditions which can hereafter be remedied only at enormous expense, and have declared themselves willing to extend their activities to Howrah on suitable financial conditions. A Bill is now under preparation for the purpose of creating a separate Improvement Trust for Howrah. It is also proposed to introduce in the Legislative Council at an early date another amending Bill which has been drawn up with a view to remove certain legal difficulties and defects in the Act, which experience of its operation in recent years has revealed.

District and Local Boards and Union Committees and Union Boards.

156. The Bengal Local Self-Government Act (III of 1885) set up three classes of local authorities, viz., District Boards with jurisdiction over a whole district, Local Boards in each subdivision, and Union Committees for smaller selected areas within the subdivision. The District Board became the principal local authority, the Local Boards and Union Committees working in

subordination to it, exercising restricted powers and dependent mainly on the District Board for funds. Considerable changes in the Act of 1885 were effected by Bengal Act V of 1908. To Commissioners of Divisions were delegated powers in respect of the appointment, removal, and resignation of members, the election of Chairmen of Local Boards and the sanctioning of the adoption of various model rules and bye-laws already framed by Government. Power was taken to levy tolls on bridges, and the diversion of the road-cess to purposes other than those enumerated in section 109 of the Cess Act, 1880, was prohibited. The application of the district fund was at the same time extended in various directions. Under the head of "Education" contributions were permitted to secondary and other schools under private management and towards the maintenance of hostels, while the constitution of an Education Committee of each District Board was provided for. In respect of medical work, authority was given to District Boards to provide for the training and employment of compounders, midwives, and veterinary practitioners, for the promotion of free vaccination and the furtherance of sanitation. The scope of expenditure permissible upon veterinary work was greatly extended. Union Committees were declared to be subordinate directly to the District Board and not to the Local Board as heretofore, and larger powers were given to them in matters of the improvement of water-supply and drainage, the regulation of buildings and of conservancy and the prevention of public nuisances within their jurisdiction. They were also authorized to impose a tax to meet the cost of improvements effected by them. In 1914, the District Administration Committee, which was appointed by the Government of Bengal to examine the conditions then prevailing in the Presidency and report in what respects the administrative machinery could be improved. found that the administration of village affairs by the Union Committees and the chaukidari panchayats created by Act VI of 1870, was unsatisfactory; the functions of the two bodies overlapped in various respects and their funds were inadequate to produce satisfactory results. They accordingly recommended the establishment of a network of village authorities who should combine the functions of Union Committees and chaukidari panchayats, and also form a village judiciary. At the same time they proposed that Local Board should be replaced by Circle Boards, which would be constituted for smaller areas and supervise the activities of the village authorities, the whole system being controlled by circle officers. A bill providing for a system of village self-government on these lines was accordingly drafted. This bill became law in 1919 under the title of the Bengal Village Self-Government Act (V B.C. of 1919), and although it departs from the recommendations of the Committee in various important respects, noticeably in abandoning the idea of replacing Local Boards by Circle Boards, it amalgamates the functions of chaukidari panchayats with those of Union Committees by creating Union Boards, vested with the powers and duties necessary for the management of communal village affairs and entrusted with powers of self-taxation necessary for that purpose. It also introduces a circle officer for a group of unions as an intermediary between Government and the people, and thus brings the administration into close touch with the villagers. Power is also taken to form Union Benches and Courts from among the members of the Union Boards for the administration of criminal and civil justice in simple cases. The Village Self-Government Act has been extended to all districts except Malda, Chittagong, and Darjeeling and is now being gradually brought into general operation.

The Bengal Laws Act I of 1914 extended the provisions of the enactment of 1908 to the Rajshahi, Dacca, and Chittagong Divisions which were formerly in Eastern Bengal and Assam. It also empowered District Boards to establish scholarships for the furtherance of technical or any other special form of education.

Act III of 1885 was further amended by the Village Self-Government Act, 1919, by which the abolition of Union Committees and the creation of Union Boards was provided for in districts where the Act has been brought into force. By the amendment of section 9 the elective franchise for Local Boards in Union Board areas has been broadened. Sections 92 to 96 of the Local Self-Government Act, 1885, were extended to all District Boards

during the decade in order to make the district fund available for expenditure on vaccination which has been made compulsory in all districts.

The main functions of District Boards are the maintenance and improvement of roads and other communications, education—especially in its primary stages—the upkeep of medical institutions, vaccination, sanitation, veterinary work, the construction and maintenance of rest-houses, and the charge of pounds and ferries. They may also devote their funds to the relief of suffering in times of famine and serious distress.

The chief functions hitherto delegated to Local Boards are the care and maintenance of village roads, the management of pounds and the charge of ferries situated within their jurisdiction. In some cases they have also been entrusted with powers of varying extent with regard to primary education and with the maintenance of district roads. Hitherto, the Local Boards have not played a conspicuously useful or successful part in the development of rural self-government. But it is expected that their sphere of usefulness will expand with the creation of Union Boards, for the supervision of which they are responsible.

The Union Committees exercise control over pounds, village roads, sanitation, and water-supply.

The major portion of the District Board revenues is derived from a cess levied on land which does not exceed one anna in the rupee on the annual rent value. Up till 1912, half of the total income accruing from this cess was credited to Government as public works cess, the other half being allotted to District Boards as road cess. In 1913, however, the public works cess was surrendered to District Boards whose resources were thus increased by nearly 30 lakhs of rupees per annum. No orders were issued definitely hypothecating the whole or any part of the public works cess to particular objects, but Government impressed on District Boards the desirability of devoting a substantial portion for sanitation, the improvement of water-supply, and anti-malarial measures.

Apart from receipts in connection with their educational and medical institutions, the only other important sources of District Board revenues are receipts from pounds and ferries and grants made by Government for education, improvement of communications, veterinary and other purposes.

Local Boards have no separate assets and are entirely dependent on the District Boards for funds.

The income of Union Committees and Union Boards mainly consists of the receipts from pounds situated within their jurisdiction, grants from District Boards and funds raised by taxation of the union residents. The number of District Boards is now 26, as a Board was constituted for the district of Darjeeling in 1921. Local Boards have been formed in all the districts except Malda, and their number is at present 82. Of these 11 were established during the last decade, *viz.*, three in Darjeeling, two in Bogra, two in Chittagong, and one in the districts of Midnapore, Murshidabad, Faridpur, and Dinajpur, respectively. The number of Union Committees has declined as that of Union Boards has increased but there were still 190 Union Committees working at the end of 1922. It is laid down in the Local Self-Government Act that when there are Local Boards throughout a district, not less than one-half of the members of the District Board must be elected by them. This is a minimum which was never exceeded before 1920. It has always been recognised, however, that the object of local self-government is to train the people in the management of their own local affairs, that the general policy must, therefore, be one of the gradual removal of unnecessary Government control, and that local bodies should be as representative as possible of the people whose affairs they are called on to administer. In 1920 it was felt that the time had come to accelerate the rate of advance towards this goal, and that considerations of administrative efficiency should be subordinated to those of political education and progress. It was thus decided in 1920 that the proportion of elected members of District Boards should be raised from one-half to two-thirds and that their personnel as well as that of Local Boards should be increased. Twenty-one District Boards now enjoy this privilege and the other Boards, with the exception of Malda and Jalpaiguri, where conditions are exceptional, are to be brought on to the same footing when

they are next reconstituted. In Malda where there is no Local Board, all the members of the District Board are appointed as required by section 7, while in Jalpaiguri, where no Local Board has been established for the Sadar subdivision, two out 17 members are elected by the Alipur Duars Local Board. A similar policy was followed in the case of Local Boards also and two-thirds of the members of all Local Boards except that of the Alipur Duars subdivision are now elected. The elective system was also extended to Union Committees, while in the case of Union Boards two-thirds of the members are elected. A progressive policy has also been initiated of freeing District and Local Boards from official tutelage. The experiment of appointing a non-official as Chairman in place of the District Magistrate of the District Board was first made in 1916 in Murshidabad. In November 1917 it was decided to extend the experiment further by giving five selected District Boards (including that of Murshidabad) the privilege of electing their own Chairman. The experiment was followed by no disastrous results and the privilege was extended to 15 more Boards in 1920 and the remaining Boards in 1921. Thus, the Chairmanship of all the Dis-Boards (except that of Darjeeling which actually commenced work in April 1922) is now held by a non-official elected member. In the case of Local Boards also, Government have prescribed that no official member should stand for election as Chairman and that the existing official Chairmen, the subdivisional officers, should make room for non-officials.

Character of Land Tenures: System of Settlement and Survey.

CHARACTER OF LAND TENURES.

157. With the exception of certain areas which are temporarily settled, the land revenue in Bengal is fixed under the Permanent Settlement concluded by Lord Cornwallis in 1793. It has already been stated that the East India Company succeeded to the Dewani of Bengal, Bihar and Orissa in 1765, and that it was not till 1771 that they assumed, by the agency of their own servants, the direct management of the revenues. When, as a result of the grant of the Dewani, it became necessary for the Company's servants to undertake the administration of the land revenue, they were placed in one of the most extraordinary positions recorded in history. Ten years before, they had been utterly expelled from the country, of which they now assumed the *de facto* Government. Having hitherto been solely occupied in the pursuit of trade, they had no means of acquiring that knowledge and experience which were necessary to enable them to take with confidence the helm of affairs. The whole theory of Indian land revenue was unknown to them, nor was there a system of written rules and plain principles which they could learn by careful application. "The Company's servants," as Mr. Kaye says, "were dead hands at investments, but they knew nothing of land tenures." Accordingly, the revenue was for some years collected on the old Moghul system. The zamindars, or Government farmers, were recognized as having a right to collect the revenue from the actual cultivators, but no principle of assessment existed. The assessments were made for five years at one period, and for one year at another; while abuses prevailed as much in the collection of the revenue due to Government as in the realization of the rents due to zamindars. It was the object of Lord Cornwallis, almost from the moment of his arrival, to enquire into these abuses, to redress grievances, and to provide for the well-being of the cultivating community, the security of the zamindars, and the interest of the East India Company by one equitable code and system. With this object in view, the Decennial Settlement was commenced in 1789 and completed in 1791. Lord Cornwallis advocated the making of this settlement permanent at once, but the Court of Directors, knowing that Shore and other able advisers deprecated the immediate declaration of permanence, deliberated for two years, and it was

Permanent settlement, 1793.

not till September 1792 that they consented to the proposal. A proclamation was then issued on the 22nd of March 1793, by which the Governor-General in Council declared that the zamindars, independent talukdars, and other actual proprietors of land, with whom the Decennial Settlement had been concluded, would be allowed to hold their estates at the same assessment for ever, but that "no claims for remission or suspension of rent were to be admitted on any account, and lands of proprietors were invariably to be sold for arrears." Proprietors were also declared to have the privilege of transferring their lands without the sanction of Government, and partition or division of estates was to be freely allowed. This proclamation was afterwards included in the Statute Book as Regulation I of 1793.

Permanently-settled tracts.

158. The Permanent Settlement embraced, roughly speaking, all the districts which now constitute the Province of Bengal, with the exception of Darjeeling obtained from the Raja of Sikkim in 1835, the Western Duars in Jalpaiguri, ceded by Bhutan in 1864, a large portion of the Chittagong district known as the Noabad area, the Chittagong Hill Tracts, and the islands and more recently deforested areas in the Sundarbans.

Resumption proceedings.

159. At the time of the Permanent Settlement large areas were claimed as revenue-free and the authority to scrutinize such revenue-free grants and, if invalid, to annex them, was reserved. Under Regulations XIX and, XXXVII of 1793, Badshahi grants (*i.e.*, direct from the Moghul Emperor) were recognized as valid, if the holder could prove his *sanad* and was in possession, and *hukumi* grants *i.e.*, from officials of the Emperor), though by their nature invalid, were accepted as valid if dated prior to 1765. No active steps, however, were taken to resume invalid grants until 1830, when a Special Commissioner was appointed under the provisions of Regulation III of 1828. The resumption proceedings then begun lasted for 20 years, and some thousands of estates were added to the revenue-roll.

Temporarily-settled tracts.

160. In addition to the areas referred to in paragraph 158, there are many scattered temporarily-settled estates in nearly all the districts which have become the property of Government by purchase at revenue sales. There are also the lands which have come into existence as a result of the ever-recurring changes in the courses of the rivers and which have been resumed under the provisions of Act IX of 1847.

Status of zamindars.

161. The zamindars, with whom the settlement was made, were a heterogenous body of men differing as to historical origin and actual status. Some of them, like the Rajas of Tippera, Cooch Behar, Bishnupur, and Birbhum, represented the old Hindu and Muhammadan Rajas of the country previous to the Moghul conquest by the Emperor Akbar in 1576, or persons who claimed that status; others, like the Rajas of Rajshahi and Dinajpur, belonged to the great landholding families that came into existence during the Muhammadan Government through its sufferance or favour, and were *de facto* rulers in their own estates or territories, and paid only a fixed tribute or land-tax; while a third, the most numerous class, consisted of men whose families had held the office of revenue collector during one, two or more generations, and had thus, according to the practice of the East, established a kind of prescriptive right. Besides these, there were the revenue farmers who, sincee the grant of the Dewani in 1765, had collected the land revenue for the East India Company, and who also happened to be called zamindars. Thus, in 1790, the term zamindar included not only the mere collectors of revenue or tahsildars removable at pleasure, but also the landowners who held princely courts, dispensed justice in their own territories, maintained their own bodies of armed followers, and handed down their position from father to son. As a result of the Permanent Settlement, all these classes were placed on a uniform legal basis, and all previous differences in the customary *status* of several classes, which had grown out of differences in origin, were obliterated.

History of the law of landlord and tenant.

162. Causes very similar to those that led to the feudalization of Europe were in force in India at the beginning and middle of the eighteenth century and, when the English found themselves masters of the country, they saw a state of things not unlike the feudal government of the Middle Ages. Consciously or unconsciously, Lord Cornwallis was thus led to introduce an imitation of the English system of landed property. The State assumed to

itself and made over to the zamindars its own supposed proprietary right to the soil, as if the cultivators had no right to hold land against the will of the Government and its grantees. Deeper and closer observation, however, would have disclosed, underlying the upper layer, conditions of life and ideas of legal rights and obligations dissimilar to any with which Englishmen were familiar; and they consequently failed to appreciate, far less to grapple with them. The property in the soil was formally declared to be vested in the landholders, but no adequate provision was made for the protection of the class of persons who were the real proprietors of the soil, and who deserved the largest amount of protection from the hands of Government.

Regulation VIII of 1793.

163. Regulation VIII of 1793, no doubt, imposed restrictions on the levying of any *abwab* or *mathut*, *i.e.*, illegal cesses, from the raiyats, and also made provision for the compulsory issue of *pattas* or leases obtained *bonâ fide* from a landlord, and directed that they should not be cancelled except upon a general measurement of the pargana for the purpose of equalizing and correcting the assessment, or upon proof that the *pattas* had been obtained in collusion, or that the rents, paid within the last three years, had been reduced below the *nirikband* of the pargana or pargana rate. But beyond these vague and general rules, there was nothing laid down to regulate the relations between the zamindars and the raiyats. Lord Cornwallis was sanguine that the combined effects of the limitation and Permanent Settlement of the State demand and of the *patta* regulations, would have the ultimate effect of adjusting the relations between the two parties. His hopes were, however, not realized. The first disappointment experienced was the failure of the attempt to enforce the issue of written leases for all tenancies. In many instances, the zamindars were unwilling to grant *pattas* or tendered them at more than the customary rates; in others, the raiyats refused to accept them either because they could not understand them, or because they thought the terms to be unfair; while the pargana rates, according to which, under Regulation IV of 1794, the Civil Courts were to decide all disputes, varied from pargana to pargana and even in adjoining villages, and never were, nor could be, ascertained.

A constant struggle was thus kept up between the parties. The raiyat refused to pay his rent, and the zamindars had no legal means of enforcing the payment from him with the same rigid punctuality with which the collector insisted upon the payment of the Government revenue. The result was a widespread default in the payment of the Government dues and the sale of a large number of estates. "By the end of the century," says a competent authority, "the greater portions of the estates of the Nadia, Rajshahi, Bishnupur, and Dinajpur Rajas had been alienated. The Burdwan estate was seriously crippled, and the Birbhum zamindari was completely ruined. A host of smaller zamindaris shared the same fate. In fact, it is scarcely too much to say that, within the ten years that immediately followed the Permanent Settlement, a complete revolution took place in the constitution and ownership of the estates which formed the subject of that settlement."

Regulation VII of 1799.

164. This circumstance caused the East India Company, which had to pay its dividends and to meet the expenses of the great war with Tippoo Sultan, in which Lord Wellesley was then engaged, some alarm for the security of the revenue, and the Government, pressed by want of money, agreed to strengthen the hands of those on whom it immediately depended for its punctual payment. The notorious Haftam, or Regulation VII of 1799, was, therefore, enacted "for enabling proprietors and farmers of land to realize their rents with greater punctuality." This Regulation gave the landlords practically unrestricted right of distraint. They were empowered "to distrain, without sending any notice to any Court of Justice or any public officer, the crops and products of the earth of every description, the grain, cattle, and all other personal property, whether found in the house or on the premises of any other person." To make matters worse, Magistrates were required to punish, by fine or imprisonment, raiyats who could not establish the truthfulness of complaints of hardship brought by them against landlords, or their distraining agents, and the Civil Courts were directed to

indemnify zamindari officers, or others employed in the collections, when improperly summoned. This Regulation was not meant to define or limit the actual "rights of any description of landholders or tenants, which could properly be ascertained and determined by judicial investigation only, but merely to point out in what manner defaulting tenants should be proceeded against in the event of their not paying the rents justly due from them, leaving them to recover their rights, if infringed, with full costs and damages in the established Courts of Justice." "These last provisions," remarks Mr. Field, "scarcely require comment. There is scarcely a country in the civilized world in which a landlord is allowed to evict his tenant without having recourse to the regular tribunals; but the Bengal zamindar was deliberately told by the Legislature that he was at liberty to oust his tenants if the rents *claimed by him* were in arrear at the end of the year, leaving *them* to recover their rights, if infringed, by having recourse to those new and untried Courts of Justice, failure in which might be punished with fine or imprisonment."

Regulation V of 1812.

165. There was, however, no intention to abrogate the rights of the raiyats by Regulation VII of 1799; and when, during Lord Minto's Administration, the evil effects of the Regulation became known, there was a strong revulsion of official feeling, which produced Regulation V of 1812 (the Panjam), whereby it was hoped to correct the bad effects of Regulation VII of 1799. The preamble to this Regulation is somewhat in the nature of an indictment against zamindars. There were grounds, it was said, for believing that this class had abused their powers and had been guilty of acts of oppression in connection with the distraint and sale of the property of their tenants. It was, therefore, enacted that zamindars were bound to serve their tenants with a written demand specifying the precise amount of their arrears and, by way of relief or compensation, the tenant, if he disputed the justice of the demand, was enabled to get the attachment released by making a certain application within five days and binding himself to institute a civil suit to contest the distraint and attachment within another 15 days. But this provision was clogged with formalities and, in practice, was inoperative. The defaulting tenant had to execute a bond with a surety before either a Commissioner, a Judge, a Collector, or the Kazi of the pargana that he would speedily institute his suit, and a civil suit in those days involved much trouble, a good deal of time, and no inconsiderable outlay. If the suit was not instituted within the prescribed time, the attachment revived against the person and the property of the defaulter who had given sureties for his action, and the property of the unfortunate surety became liable for the arrears of rent, if no suit was brought. It is noticeable that there is raised in this law for the first time a doubt as to the existence of any regular standard known as the pargana rate. Failing such rates, rents were to be assessed and collections made according to the rates payable for lands of a similar description in the neighbourhood. There was another important section in the law by which an enhanced rate of rent could not be levied or awarded judicially unless it was preceded by a formal notice. Of the excellent intention of the framers of this law there can be no doubt, but it made no provision for defining rights by record, and thus only dealt with a part of the evil. It would, however, have been a relief, had it not been neutralized by other Regulations.

Regulation XI of 1822.

166. In a despatch, dated the 1st of August 1822, the Government of India proposed to the Court of Directors to make a survey and record-of-rights of the permanently-settled districts of Bengal, as being the only effectual means of defining and maintaining the rights of the raiyats. This proposal was, however, never carried out and, while the correspondence relating to it was proceeding, fresh legislation, which proved injurious to the raiyats, was undertaken. A Regulation, No. XI, was passed in 1822, relating to the sale of land for arrears of revenue which being, like the Haftam, intended to enable the zamindars to realize their rents and then discharge the Government revenue, really placed them in a position of abnormal superiority to their raiyats.

Thus, up to the middle of the last century, the zamindars exercised an authority over the raiyats far greater than that given to them by the

original settlement of 1793. All legislation of this period, dealing with landlord and tenant, had one primary object, *viz.*, the security of the public revenue, and each successive Regulation served only to arm those who were under engagements for revenue with additional powers, so as to enable them to realize their demands in the first instance, whether right or wrong. "Under the Haftam process," as has been well observed, "the person of the raiyat could be seized in default; under the Panjam process his property could be distrained; and in either case the proceedings commenced with what has been described as a strong presumption equivalent to a knock-down blow against the raiyat." Remedies were no doubt provided in every Regulation for redress against any injustice by referring discontented parties to the Civil Court, but, constituted as the Civil Courts then were, the raiyats were left without adequate means of relief for the most manifest extortions. Regulation I of 1793 had declared: "It being the duty of the ruling powers to protect all classes of people and more particularly those who, from their situation, are helpless, the Governor-General in Council will, whenever he may deem it proper, enact such Regulations as he may think necessary for the protection and welfare of the dependent talukdars, raiyats and other cultivators of the soil," but no attempt even was made to give effect to this declaration till 1859.

Act X of 1859.

167. Act X of 1859, which may be described as the first modern tenant law, came at a time when the evils of the existing state of things were so patent that, in giving his assent to the Act as passed by the Legislative Council on the 29th of April 1859, Lord Canning was able to say, "no objection is suggested to the nature of the settlement which the Bill contemplates." The Act defined the classes of tenants whose rent was fixed, and conferred a right of occupancy on those who had continuously held the same land for twelve years either personally or through their predecessors from whom the holding descended. This right of occupancy was of course conditional on the due payment of rent which could only be enhanced for certain specified reasons and by a certain procedure. The Act also made provisions for settling rent-disputes and questions of abatement and enhancement, renewed the attempt to bring about an interchange of *pattas* and *kabuliyats*, directed the delivery of receipts for rent, and transferred the original jurisdiction in suits between landlord and tenant from the Civil to the Revenue Courts. Distraint was modified but not abolished, and the registration of transfers of permanent transferable interests between the cultivator and the landlord was made compulsory. Act X of 1859 was amended by Bengal Act VIII of 1869, by which the trial of rent-suits was again transferred from the Revenue authorities to the Civil Courts.

Act VIII of 1885.

168. The principal defects of Act X of 1859 were that it placed the right of occupancy which it recognized in the tenant, and the right of enhancement which it recognized in the landlord, on a precarious footing. It gave, or professed to give, the raiyat a right which he could not prove, and the landlord one which he could not enforce. The courts of law, with rigid impartiality, required the raiyat to establish his occupancy right by showing that he had cultivated the same plot of land for twelve successive years, and demanded from the landlord the impossible proof that the value of the produce had increased in the same proportion in which he asked that his rent should be enhanced. The party upon whom lay the burden of proof was almost certain to fail. To this evil, the Bengal Tenancy Act (Act VIII of 1885) was intended to afford a remedy. The principle of the Act may be said to be based upon a system of fixity of tenure at judicial rents, and its three main objects are—*firstly*, to give the settled raiyat the same security in his holding as he enjoyed under the old customary law; *secondly*, to ensure to the landlord a fair share of the increased value of the produce of the soil; and *thirdly*, to lay down rules by which all disputed questions between landlord and tenant can be reduced to simple issues and decided upon equitable principles. A good example of the first will be found in the clause which throws upon the landlord the onus of disproving the raiyat's claim to a right of occupancy; the second is illustrated by the section relating to price lists, which relieves the zamindar of the burden of showing that the value of the produce has increased; the third pervades the whole of the Act, and is specially conspicuous in the valuable section which authorizes an application

to determine the incidents of a tenancy, and in the chapter which relates to records-of-right and settlements of rents. The maintenance of the principles of the Act is further safeguarded by a section which restricts the power of entering into contracts in contravention of its fundamental provisions.

In pursuance of these main princpiles, the Act lays down rules to guide the Courts in determining whether a tenant is a tenure-holder or a raiyat; it provides a procedure for the registration of the transfers of tenures; it defines the position of raiyats who hold at fixed rates of rent; it facilitates enhancement or reduction of rents of settled and other raiyats by suit; it establishes a system for the commutation of rents payable in kind; it specifies the grounds on which a non-occupancy raiyat may be ejected; it prescribes rules for instalments, receipts and interest upon arrears; it encourages the making of improvements; it restricts subletting; it provides for cases in which holdings are surrendered or abandoned; it protects the interests, both of the parties and of the general public, in cases of disputes between co-sharers; it lays down a procedure for recording the private lands of proprietors; it introduces a new system of distraint; it gives protection to sub-tenants when the interest of the superior holder is relinquished or sold in execution of a decree; and finally it provides for a survey and the preparation of a record-of-rights in respect of any local area, estate or tenure or part thereof, by a Revenue Officer, and thus settles all disputes between landlord and tenant as to area, rent and status which are the chief subjects of contention.

Thus the Legislature of 1885, nearly a century after the Permanent Settlement, settled the general principles by which the relation between the landlord and the tenant was to be regulated. Act VIII of 1885, though not professing to be an exhaustive code of the law of landlord and tenant, is nevertheless a complete and self-contained enactment so far as the most important agrarian relations are concerned. Since it was passed in 1885, it has undergone various important amendments; but the principles on which the Act was founded have remained unaltered. The first amendment of the Act was made by Act VIII of 1886 which merely made some slight alterations in the sections dealing with the transfer of permanent tenures. It was followed by Act I of 1894 which made some changes in the procedure for the preparation of a record-of-rights under Chapter X.

Act III of 1898.

169. The first important amendment was made by the Act III of 1898 which completely recast Chapter X, dividing it into two separate portions, the first dealing with the preparation of a record-of-rights with a view to a settlement of the land revenue and providing for a settlement of fair and equitable rents for tenants of every class, as an integral part of the operations; and the second dealing with the preparation of a record-of-rights in areas where the land revenue is not being settled, the Settlement Officer being given power to settle fair and equitable rents only where application is made for such settlement by the landlord or tenant, and in other cases being confined to a record of the rent payable at the time the record-of-rights is being prepared. The Act also made some important alterations in the provisions relating to enhancement and reduction of rent.

Act I [B.C.] of 1907.

170. The next amending Act is Act I (B.C.) of 1907 (corresponding to Eastern Bengal and Assam Act I of 1908) which is probably the most important agrarian measure passed since 1885. This Act gives greater authority to the record-of-rights when duly prepared and published. The entry regarding rent has to be produced in all rent-suits and every entry in a record-of-rights is to be presumed by the Civil Courts to be correct until it is proved by evidence to be incorrect and a Court passing a decree at variance with entries in a record-of-rights has to record its reasons for so doing. The Act also provides that, where a record-of-rights has been prepared and is being maintained, a landlord may apply to Government to have his arrears of rent recovered by the summary procedure prescribed in the Public Demands Recovery Act I (B.C.) of 1895. On the other hand, with the consent of the Governor-General in Council, a Revenue Officer may be empowered to reduce rents which have been illegally enhanced above those entered as legally payable in a record-of-rights. The Act also lays down

that no Revenue or Civil Court shall give effect to agreements or compromises between landlords and tenants, the terms of which, if embodied in a contract, could not be enforced under the Tenancy Act.

171. In 1918-19 two more amending Acts were passed. Act III of 1919 placed the collection of cess in excess of the rate determined under the Cess Act on the same footing as *abwabs* and Act II of 1918, which applied in the first instance to the districts of Midnapore, Birbhum, and Bankura, was an attempt to save the Santal tenants from the consequences of their own improvidence by placing severe restrictions on the purchase and sale of their lands. Act III of 1919. Act II of 1918.

Lying on the extreme west of the province this area once formed a part of the old Jungle Mahals. It is inhabited mainly by Santals and kindred aboriginal tribes, to whose labour the reclamation of the land from virgin forest is due. The simplicity of the typical Santal makes him an easy prey to the Bengali trader and *mahajan*, and it was known that the land was passing out their hands at a rapid rate. As a consequence there was considerable discontent, which it was feared, might result in active agricultural disturbances. Accordingly, in 1909, a Special Officer was deputed to enquire into the condition of the Santals, and to make recommendations to remedy their grievances on the lines of the special legislation already introduced for the Santal parganas.

Under the provisions of Act II of 1918 no transfers of land by aboriginals unless with the express permission of the Collector previously obtained have any validity in the Courts. This principle is subject to the exception that aboriginals may sublet or make a complete usufructuary mortgage of their lands to other aboriginals without such permission provided that the term of the mortgage does not extend beyond seven years. The Collector may, on obtaining information of any invalid transfer of land, eject the transferee and either resettle the land with the former aboriginal or hand it over to the landlord for settlement with some other aboriginal.

In Bankura, settlement operations were in progress at the time of the passing of the Act. In many cases the process of ejectment of the aboriginals from their lands was already complete. In the villages where Santals still preponderate, the real difficulty observed in the working of the Act lies in the fact that his land is the aboriginal's sole asset. He can no longer borrow money on the security of his land, and when his crops fail, money he must have. It has been suggested that the introduction of some system of co-operative grain *golas* might overcome this difficulty. The aboriginal would willingly contribute paddy in his time of prosperity provided he could draw upon the common store in times of scarcity.

A further result of the inquiry referred to above was that in Mr. P. M. Robertson's settlement of the Santal villages in the Rampurhat subdivision of Birbhum between 1909 and 1914, the special procedure of section 112 of the Tenancy Act was adopted to fix the rents of all tenants in a manner which would not have been possible if the landlords and tenants had been left to apply for increases and reductions in rent according to the ordinary provisions of section 105. In somewhat different circumstances the same special procedure was applied to the Silda pargana in the course of the district operations in Midnapore. The headmen known as Mandals, who intervene between the original Santal settlers and the proprietor in this part of the estates of the Midnapore Zamindari Company had contracted to pay enhanced rents which were in some cases in excess of their existing assets. As tenure-holders they were bound by their contracts but the tenants beneath them were raiyats and their rents could not legally be enhanced more than two annas in the rupee. The settlement conducted under section 112 gave the Settlement Officer a free hand to increase the assets of the Mandals to a reasonable extent and to fix the rent they would pay to the landlord at a fair proportion of their own rent-roll.

172. Among the Santals the trouble was that the tenancy law had outstripped their social development and left them at the mercy of the money-lender, who sold up their holdings and, if he did not take possession The Tenancy Act in practice.

himself, relet them at a ruinous produce rent. It is not only among the Santals that this process is going on. The purchaser of a raiyati holding is himself a raiyat and in all the districts of Bengal many of the legal raiyats are no longer the actual cultivators. The protection which the Tenancy Act gives to the actual cultivator if he is an under-raiyat is of the most shadowy and debatable character. On the other hand, the raiyat who has raised himself in the social scale has found that he cannot always secure from the Courts the privileges of both classes, and that unless he can be recorded as a permanent tenure-holder in the eye of the law, he is little better than a tenant-at-will. In Northern Bengal the rigid classification introduced by the Tenancy Act between tenure-holder and raiyat was never in accordance with facts. In the Dacca and Burdwan divisions the landlords seldom exercise any control over the transfer of raiyati rights to undesirable tenants with the result that money-lenders acquire the occupancy right and sublet to under-raiyats at rents which, in spite of section 48, neither the Settlement Officers nor the Courts have proved able to control. The framers of the original Act, knowing that no rules were equally applicable to all the districts of the province, not only provided that local custom might govern the occupancy rights of under-raiyats and the transferability of holdings, but left it to custom to regulate in its entirety the rights of raiyats in trees and other less important matters. The standard of proof required by the Courts to establish local usage or custom was invariably beyond the power of the party on whom the onus rested, and for a long time associations of tenants throughout the country have been clamouring for an amendment of the law which would give them transferability, full rights in trees, and other privileges. On the other hand the landlords have objected strongly to the working of the commutation section and have found that the concession granted by the Amending Act of 1908 of collecting rents by the certificate procedure was of no practical value because the record-of-rights never is maintained. In a country where the law of primogeniture does not govern the inheritance of land, all properties sooner or later come into the possession of numerous co-sharers whose interests are opposed. The procedure for securing legal partition is expensive and tedious, and the disabilities which section 188 of the Act of 1885 intended to impose in the interests of under-tenants on the action of co-sharer landlords have proved so unsuitable and impossible that the Courts have been forced to welcome any number of loopholes for avoiding its provisions. For many years Government has been considering the question of legislation on some of these points, especially the transferability of holdings, but has been unwilling to bring the whole Act into the melting pot by proposing any substantial changes of principle. In December 1920, however, a committee was appointed to consider the whole Act, and it is anticipated that a Bill will be brought before the Council at the end of 1923.

Records-of-rights. (a) Registration of estates.

173. A primary object of the framers of the Permanent Settlement was to record all rights in the land. Accordingly, the Legislature intended from the beginning that there should be at least one register kept, showing the extent and particulars of each estate separately assessed with revenue payable to Government. The object was to enable the Collectors to apportion the revenue in cases of partitions, and to enable the Civil Courts to know when an estate changed hands, or happened to be transferred from one district to another.

Regulation XLVII of 1793.

174. Regulation XLVII of 1793 prescribed a general register of estates paying revenue immediately to Government. Each estate was to be described by name, and it was to be mentioned whether it consisted of a village, a *tappa* (group of villages), or a pargana. The nature of the grant was to be described and, if the estate had been partitioned, the shares were to be specified. A register of intermediate mutations was to be kept, and the general register was to be rewritten every five years. The Registration Regulation of 1800 made further provisions and directed that the registers should be kept up by parganas, but, up till the passing of the Bengal Land Registration Act (VII of 1876), the law as to registration

Act VII of 1876.

was not strictly enforced. Such registers as there were did not explain who the owners were, and furnished no information about under-tenures and raiyats.

The present law requires the registration of all lands, whether revenue-paying or revenue-free, and every person in possession, as owner or manager of such lands, or of any share in such lands, is required within a certain period and under heavy penalties, to register full particulars of the property in his possession. The object of the Act is not to make an inquisition into titles, but to identify all individuals on whom the Legislature has imposed certain duties and obligations in virtue of their being in possession of land as proprietors. The registers, required to be kept up now, are—(1) a Register A showing the revenue-paying lands in the district; (2) a Register B of revenue-free lands; (3) a Register C of lands paying revenue and those held revenue-free, arranged *mauzawar;* and (4) an intermediate Register D for all kinds of land, showing the changes in proprietary rights and changes caused by the alteration of the district and other boundaries. These registers are now maintained in every district.

(b) Registration of subordinate interests in land.

175. It will be observed that these registers do not profess to deal with any subordinate rights or interests. For several years after the Permanent Settlement, endeavours were made to maintain a record of these through kanungos and patwaris, but without success. An attempt was made to revive the system in 1885, but had to be abandoned. The record-of-rights prepared under the Tenancy Act of course provides a full account of all subordinate tenancies and it was originally intended that it should be maintained. In 1895, the Land Records Maintenance Act was passed, and it has been worked experimentally in selected districts in Bihar, but the result has been disappointing. A scheme for the maintenance of records in the district of Chittagong was prepared in 1906-07, but it involved great initial expense and it has never been carried into effect. The District Administration Committee of 1914 went into the question and came to the conclusion that maintenance would be too expensive and recommended a thorough revision every 10 or 15 years. Pending the completion of an original record in all the districts of the province, no funds have been available for revision in those districts in which the records have been in existence for 10 years or more, and with the exception of a few estates of which the proprietors have themselves paid the cost of a yearly maintenance under section 158A with the idea of securing the benefit of the certificates procedure for the purpose of collecting their rents the settlement records of permanently-settled estates are neither maintained nor revised in this province. The defect in the registration of subordinate interests has been partially supplied by the returns submitted under the Road Cess Act. The results are, however, vitiated by the system of summary valuation for the purposes of cess calculation which " withdraws from sight all details of tenures, under-tenures, and raiyati holdings contained in such estates or tenures as are summarily valued." In the instructions issued to the officers engaged in making revaluations under Act IX of 1880, an attempt was made to remedy this defect in the returns by declaring that the least possible recourse should be had to the process of summary valuation. Another method of registering under-tenures is that under the Sale Law (Act XI of 1859), which provides that they may be registered either in a common or a special register. Registration in the former protects them from being voided on sale of the estate for arrears, by any party other than Government, and registration in the latter protects them absolutely. Changes in certain subordinate interests, *viz.*, permanent tenures, and holdings at rents or rates of rent fixed in perpetuity (and shares of the same) are registered under the Bengal Tenancy Act. Generally speaking, therefore, in the areas which are not covered by records-of-rights, information as to subordinate interests is not only very defective, but is also available only in forms of which it is difficult to make use for administrative or statistical purposes.

Means of recovering revenue.

176. The revenue of the permanently-settled estates of Bengal is, as a rule, realized with great punctuality. As the *jama* was fixed by the Permanent Settlement never to be increased, so, on the other hand, remissions

were declared to be inadmissible whether on the plea of loss from unfavourable seasons, inundations or any other cause. The payment of revenue is the first charge on an estate, and a default, on the part of a zamindar, renders his property liable to sale by auction for the realization of the arrears.

In the earlier years, the revenue instalments were payable monthly, and an arrear of revenue was defined to be "the whole or the portion of the *kist*, or instalment, payable in any month and remaining undischarged on the first of the following month." On the accrual of an arrear, the Collector was to serve a notice on the defaulter, and, on his failure to pay, had the option of putting him under confinement. The Board of Revenue alone, however, could direct the sale of the whole or any portion of the estate, and the sanction of the Governor-General in Council was in every case necessary. If the proceeds of the sale did not satisfy the Government demand, other properties of the defaulter might be sold to recover the remainder. In 1794 proprietors of land were declared to be no longer liable to be confined for arrears of public revenue, unless in the event of the whole of their lands having been sold without realizing sufficient to defray the amount due to Government. The Board were at the same time authorized to advertise estates for sale in anticipation of the sanction of the Governor-General, but no sale was to take place without such sanction.

Regulation VII of 1799.

177. Material alterations were made in the law by Regulation VII of 1799. It was then enacted that, when an arrear remained undischarged on the first day of the month succeeding that for which it was due, the Collector was immediately to require payment with interest; and if it were not then discharged, he was to proceed without delay to attach the estates of the defaulter, or such portions thereof as would be sufficient to make good the amount due. These estates were, however, not to be sold till the end of the year, and the Board were now for the first time authorized to sell them without any reference to the Governor-General. If the whole arrear was not recovered from the sale of the defaulter's lands, the deficiency was to be recoverable from any other property he might possess or by imprisonment of his person.

Regulation XVIII of 1814.

178. By Regulation XVIII of 1814 a further modification was made. It authorized the Collectors to advertise the lands of a defaulter for sale without the previous sanction of the Board of Revenue, if such lands constituted an entire estate or the whole of the defaulter's rights and interests in a joint estate. He was then to report to the Board, and was not to proceed to actual sale until receipt of the Board's sanction. This sanction the Board were empowered to give without any previous reference to the Governor-General in Council.

Regulation XI of 1822.

179. The next Regulation of importance was XI of 1822. During the 20 years which had elapsed since the passing of Regulation VII of 1799, a great change had taken place. The object of the legislation of 1799 and the following years had been to secure the punctual realization of the revenue assessed at the time of the Permanent Settlement without resort to the old system of confining, and occasionally inflicting corporal punishment upon defaulters. The terror of personal coercion being removed, various devices had been practised to elude payment of the just dues of Government; and, in many instances, these dues had not been discharged, because those who were liable to Government for revenue were unable to compel similar punctuality in the payment of rent by their tenants. Armed, however, with powers of enforcing payment scarcely inferior to those exercised by Government for enforcing payments of its revenue, and taught by experience that persistence in fraudulent devices was sure to result in an ultimate loss, the great majority were successfully schooled to punctuality, and cases of default became yearly of less frequent occurrence. At the same time the prosperity, resulting from more than a quarter of a century's peace, largely raised the value of land, and, where arrears had been suffered to accrue, owing to temporary apathy, or mismanagement, or negligence, or dishonesty of agents, and in consequence, an estate had been brought to sale by the inexorable revenue authorities, flaws in their proceedings were eagerly searched for, and the Civil Courts were resorted to for setting aside sales at which

irregularities had been discovered. The rights of the auction purchasers, not being very exactly defined by the Regulations, formed, moreover, a constant source of litigation. We find the Legislature in 1822, therefore, no longer devising means for bringing home their liability for arrears to proprietors, but improving the procedure of the revenue authorities, declaring what irregularities should be held material and what immaterial, and defining the exact interest acquired by purchasers at public sales.

Accordingly, Regulation XI of 1822 dispensed with the necessity of issuing process of attachment before putting the estate up for sale; laid down the conditions necessary for the validity of the sale; defined the jurisdiction of the Civil Courts in cases of sale; framed rules for the conduct of sales; and vested the Board of Revenue with the power of annulling sales made by Collectors under their authority, not only in cases in which they appeared to have been irregularly conducted by those officers, but also in cases in which the defaulter might clearly appear to have been defrauded or deceived by his own agents, or in which the confirmation of the sale might, from any cause, appear to be a measure of excessive severity or to be otherwise inexpedient or improper.

Regulation VII of 1830.

180. The last of the Regulations concerned with recovery of arrears of revenue was Regulation VII of 1830, which authorized Collectors to advertise estates in arrears for sale, and to proceed to actual sale without any previous reference for the sanction of the Commissioner, who had been appointed under the provisions of Regulation I of 1829, and to whom had been delegated some of the more immediate functions of the Board. No sale was, however, to be final until it had been confirmed by the Commissioner. This law lasted till 1841, when Act XII replaced it. The provisions of the latter Act, which re-enacted with slight modifications in Act I of 1845 are still to be found in almost their original form in Act XI of 1859, the existing Sale Law for Bengal.

Act XII of 1841.

Act XI of 1859.

181. Act XI of 1859 was passed, not so much from any necessity for altering what had been done in 1841, or for remedying defects which time had brought to light in the working of the law as then settled, as from the expediency of affording protection to new interests which had sprung up during a further period of progress and prosperity. Under this Act an "arrear" accrues, if the *kist* or instalment of revenue of one month remains unpaid on the 1st of the following month, but in some cases notice for 15 days before sale is required; persons, who have a lien upon any estate and who pay the money to protect such estate from sale, are allowed to add the amount so paid to the amount of the original lien; sharers of a joint estate can protect their own shares from being sold for arrears along with the rest of the estate by applying to the Collector to be allowed to pay their share of the Government revenue separately. To guard against the accidental sale of their estates by reason of the neglect or fraud of their agents, recorded proprietors of estates are empowered to deposit with the Collector money or Government securities endorsed and made payable to the order of the Collector, at the same time signing an agreement pledging the same to Government by way of security for the revenue of the entire estate, and authorizing the Collector to apply them to the payment of any revenue that may become due therefrom; and, lastly, to protect the holders of under-tenures from loss by the avoidance of their tenures by the sale of the estate, the law provides for two sets of registers, one for Common Registry, and the other for Special Registry, Common Registry securing them against any auction-purchaser except Government, and Special Registry securing them against Government also. An appeal against a sale, held by the Collector, lies to the Commissioner, who may set aside the sale, if illegal, or, in cases of hardship, report to the Board, on whose recommendation it may be annulled by the Local Government. The Civil Courts have also been empowered to set aside sales in certain cases.

One feature of the Sale Law, which was early considered to be necessary, deserves notice. Soon after the Permanent Settlement it became a custom with the landlords to divest themselves of the trouble of management by farming out portions of their estates. There were so many encumbrances

that it was apprehended that, if they remained valid when the landlord's interest was sold for arrears of revenue, the prices realized would not be sufficient to meet the demands of Government. It was, accordingly, enacted in the Regulation of 1793, that, on a sale for arrears of revenue, all engagements subsisting between the proprietors and their dependent talukdars, farmers, and raiyats, on account of such land, should, with certain exceptions, stand cancelled. But this wholesale avoidance of contracts, made by the defaulting landlords, was soon recognized to be excessive, and successive Regulations and Acts have mitigated the terms.

Interests protected under Act XI of 1859.

182. The protected interests under the present Sale Law are—

(1) *istimrari* or *mukarrari* tenures, which have been held at a fixed rent from the time of the Permanent Settlement;

(2) tenures, existing at the time of the Settlement, which have not been held at a fixed rent; provided that the rents of such tenures shall be liable to enhancement under any law for the time being in force for the enhancement of the rent of such tenures;

(3) talukdari and other similar tenures created since the time of the Settlement and held immediately by the proprietors of estates, and farms for terms of years so held, when such tenures and farms have been duly registered under the provision of this Act; and

(4) leases of lands whereon dwelling-houses, manufactories, or other permanent buildings have been erected, or whereon gardens, plantations, tanks, wells, canals, places of worship, or burning or burying-grounds have been made, or wherein mines have been sunk.

It is to be remembered, however, that the protection that this law affords to the tenure-holders is much lessened through the period of limitation laid down by section 2 of Act III (B.C.) of 1862.

General account of tenures, under tenures, and holdings in Bengal.

183. At the permanent settlement Government, by abdicating its position as exclusive possessor of the soil, and contenting itself with a permanent rent-charge on the land, escaped thenceforward the labour and risks attendant upon detailed *mufassal* management. The zamindars of Bengal Proper were not slow to follow the example set them, and immediately began to dispose of their zamindaris in a similar manner. Permanent tenures, known as *patni* tenures, were created in large numbers, and extensive tracts were leased out on long terms. By the year 1819, permanent alienations of the kind described had been so extensively effected, that they were formally legalized by Regulation VIII of that year, and means were afforded to the zamindar of recovering arrears of rent from his *patnidars*, almost identical with those by which the demands of Government were enforced against himself. The practice of granting such tenures has steadily continued, until at the present day a large proportion of the whole permanently-settled area has passed from the direct possession of the zamindars. In these alienations the zamindars have made far better terms for themselves than the Government was able to make for itself in 1793. It has rarely happened that a *patni*, or even a lease for a term of years, has been given otherwise than on payment of a bonus, which has discounted the contingency of many years' increased rents. It is a system by which, in its adoption by the zamindars, their posterity suffers, because it is clear that if the bonus were not exacted, a higher rental could be permanently obtained from the land. This consideration has not, however, had much practical weight with the landholders. If a gradual accession to the wealth and influence of sub-proprietors be a desirable thing in the interest of the community, then the action of the landholding class is not in this instance a subject for regret.

Dar-patnis, dar-ijaras, &c.

184. The process of sub-infeudation described above has not terminated with the *patnidars* and *ijardars*. Lower gradations of tenures under them, called *dar-patnis* and *dar-ijaras* and even further subordinate tenures, called

se-patnis, *chahar-patnis*, etc., have been created in great numbers. Not unfrequently, especially where particular lands are required for the growth of special crops, such as indigo, superior holders have taken under-tenures from their own tenants. These tenures and under-tenures often comprise defined tracts of land but a common practice has been to sub-let certain aliquot shares of the whole superior tenure, the consequence of which is that the tenants in any particular village of an estate now very often pay their rents to two, or even many more than two, different landlords, so many annas in the rupee to each. It must be added that in many cases where an estate or tenure has been sub-let, the lessor has reserved certain portions, generally those immediately contiguous to his residence, in his own possession. *Khamar* or *nij jote* lands, which the proprietor cultivates for himself by hired labour, and in which under section 116 of the Tenancy Act no sub-lessees can acquire occupancy rights are extremely rare in Bengal though many proprietors and tenure-holders loosely style as their *khamar* lands the lands round their homesteads which they let to tenants on produce rents.

Zirat and hastabud.

185. All the under-tenures in Bengal have not, however, been created since the Permanent Settlement in the manner above described. Dependent taluks, *gantis*, *howalas*, and other similar fixed and transferable under-tenures existed before that event occurred. Their permanent character was practically recognized at the time of the settlement, and has, at any rate, since been confirmed by lapse of time.

Under-tenures recognized at the Permanent Settlement of 1793.

186. Taluks in Bengal are of two kinds, the *huzuri* (that is, paying to the *huzur* or headquarter treasury), and *kharija* (that is, separated) taluks, and the *shikmi* (dependent), *mazkuri* (because they were specified in the zamindar's engagements), and *shamili* (from *shamil*, extending to) taluks. The *huzuri* or *kharija* taluks only are estates or zamindaris, the others being tenures.

Detailed account of tenures, under-tenures, and holdings in Bengal.

Taluks (independent and dependent). huzuri and kharija (independent) taluks.

Most of the taluks now in existence appear to date from before the Permanent Settlement and a large number were grants from the previous Muhammadan Government. In the Dacca and Chittagong divisions and probably elsewhere, these taluks were granted for the reclamation of waste lands. They differed greatly in size, and following the Muhammadan practice of collecting revenue through as few channels as possible, they were directed to pay their revenue through a substantial middleman (often one of themselves) or through a neighbouring zamindar. They were, however, originally independent, and it was the intention of the British Government at the time of the Permanent Settlement to separate all such grants by the paramount power from the zamindari to which they were attached. In the ignorance of those days very partial effect was given to this intention, many talukdars who were really independent being left in the zamindaris and others, who derived their title from the zamindar, being separated. Zamindars themselves sold or gave away portions of their zamindaris in Muhammadan times, while other portions were forcibly taken away from them or sold to pay arrears of revenue or other debts to the State. Many such cases were classed at the Permanent Settlement as *kharija taluks*.

The creation of taluks by zamindars and of subordinate tenures by talukdars was probably only common under the Muhammadan system, where extensive areas of a jungle were being reclaimed. When British rule replaced Muhammadan rule, it became much more frequent even before the Permanent Settlement, many of the tenures being created in favour of a relative of the grantor, largely, no doubt, because the early British system of assessing revenue upon the rental made this an easy method of hoodwinking the revenue authorities. Tenures at a fixed rent, whether taluks or subordinate tenures, were impossible under the Muhammadan revenue system and were not legal under the British system until 1812. Even then they were not valid in the event of a sale of the grantor's zamindari for arrears of revenue. In 1859, they became protected interests on registration under the Sale Law. The Bengal Tenancy Act conferred further privileges upon permanent tenures existing from the time of the Permanent Settlement.

In Bengal at the present day the number of tenures and subordinate tenures is legion, but very little is accurately known about them, except in districts in which a record-of-rights has been prepared.

There are, however, in general three main classes:—

(1) *abadkari* tenures created for the reclamation of waste land by the establishment of tenants;

(2) *patni* tenures created since the Permanent Settlement to facilitate the collection of rent and thereby the payment of revenue; and

(3) *jote* tenures, which are often very old and of which the holders have always been treated and regarded by their landlords as on practically the same footing as occupancy raiyats.

The first class is most common in the Dacca and Chittagong divisions and in the southern districts of the Presidency division.

The second class is chiefly found in the Burdwan division, but has extended to all divisions.

The third class is chiefly found in the Rajshahi division.

It will be noted that whereas the second class consists exclusively of pure middlemen, this is not necessarily true of the first class and not at all true of the third class. In both these classes there are tenure-holders, who cultivate as well as sub-let, and amongst *jote* tenure-holders there are many who are pure cultivators. Some confusion as to the rights of these tenure-holders was introduced by the classification of all tenants by the Tenancy Act as either tenure-holders, raiyats or under-raiyats, the tenure-holder being generally described as a middleman and the raiyat as a cultivator. The holders of *abadkari* and *jote* tenures who were in origin cultivators and who have been treated by their landlords as raiyats have found themselves in danger of losing many of their customary rights and privileges when the question of classifying them according to the provisions of the Tenancy Act has arisen. Their contracts in many cases prevented them from being recognised as permanent tenure-holders and the Tenancy Act recognises no other class of tenure-holder with rights as good as those of occupancy raiyats. A description of some of the tenures which are found in Bengal follows.

Fixed rent tenures.

187. There are certain tenures which have existed from before the Permanent Settlement and are known as *istimrari*, *mukarrari* and *maurusi* tenures. They are protected from cancellation on the occurrence of a sale for arrears of revenue of the parent estate, if they existed at the time of the Permanent Settlement, or have been duly registered under the provisions of the Sale Law.

Patni, dar-patni and se-patni tenures.

188. The *patni* tenure had its origin in the estates of the Maharaja of Burdwan, and thence spread all over the permanently-settled area of the Province. It appears that the Maharaja first created this species of tenure in his large estates in the Burdwan and other districts, but that he extended it when, in the early part of this century, he became possessed by purchase of large estates in the district of Bankura. A *patni* tenure is, in effect, a lease, which binds its holder by terms and conditions similar to those by which a superior landlord is bound to the State. By Regulation XLIV of 1793, the proprietors of estates were allowed to grant leases for a period not exceeding 10 years, but this provision was rescinded by section 2 of Regulation V of 1812, while by Regulation XVIII of the same year proprietors were declared competent to grant leases for any period even in perpetuity. Finally, Regulation VIII of 1819, known as the Patni Sale Law, declared the validity of these permanent tenures, defined the relative rights of the zamindars and their subordinate *patni* talukdars, and established a summary process for the sale of such tenures in satisfaction of the zamindar's demand of rent. It also legalized under-letting, on similar terms, by the *patnidars* and others. Since the passing of this law this form of tenure has been very popular with zamindars who wish to divest themselves of the direct management of their property, or part of it, or who wish to raise money in the shape of a bonus. It may be described as a tenure created by the zamindar to be

held by the lessee and his heirs or transferees for ever at a rent fixed in perpetuity, subject to the liability of annulment on sale of the parent estate for arrears of the Government revenue, unless protected against the rights exercisable by auction-purchasers by common or special registry, as prescribed by sections 37 and 39 of Act XI of 1859. Section 13 of Regulation VIII of 1819 provides rules for staying the sale of a *patni*, if it takes place owing to the intentional withholding of payment of rent by the *patnidar* with the object of ruining his subordinate tenure-holders. In such cases the under-tenants are allowed the means of saving the *patni* tenure and their own under-tenures by paying into the Collector's office the advertised balance due to the zamindar. The *patni* tenure so preserved forms the necessary security to the depositors, who have a lien on it in the same manner as if the loan had been made upon mortgage. The depositors may then apply to the Collector for obtaining immediate possession of the defaulter's tenure; and the defaulter will not recover his tenure, "except upon repayment of the entire sum advanced, with interest at the rate of 12 per cent. per annum up to the date of possession having been given, or upon exhibiting proof, in a regular suit to be instituted for the purpose, that the full amount so advanced, with interest, has been realized from the usufruct of the tenure."

189. The land tenures found in Chittagong are— **Tenures of Chittagong.**

(1) the proprietary estates of the petty zamindars, or *tarafdars*, who were originally the middlemen between the Central Government and the talukdars;

(2) the subordinate tenures of the talukdars who have the direct interest in the land; and

(3) the tenures of those who came in after the permanent settlement and whose holdings are known as *noabad* taluks.

During the turbulent times preceding the Muhammadan occupation of the district, small settlements of cultivators appear to have been formed in different directions for the purpose of reclaiming the jungle with which the district was then covered and the clearance, which a family and its dependents made, came to be known as a *taluk*. As there was no Central Government prior to 1666 sufficiently strong to collect revenue, it is probable that none was paid at this period. As soon as the Muhammadans established themselves in the country, they took steps to collect rents from these squatters and, with this object in view, grouped the already existing taluks into estates or *tarafs*.

The unit of each *taraf* was the settler's clearance, and the *tarafdar* was the middleman, who collected the revenue from the talukdars and paid a portion of it to the Government. But, inasmuch as the bulk of the district was as yet covered with dense forest, and what cultivation there was lay scattered about in small clearances, it followed that the *taraf* or the estate was itself only an aggregate of such scattered clearances. Such *tarafs* were usually called after the name of the original grantee; and as the settlers were many and scattered all over the district, while the number of persons in a position to take up such grants was limited, it happened that one *tarafdar* acquired clearances in many parts of the district. And such taluks or collections of taluks changed hands from time to time by sales, so that the most powerful men got in time a large number of them into their hands. It was with these *tarafdars* or zamindars that the Permanent Settlement was concluded.

The talukdars of the present day are, many of them, the direct descendants of the original reclaimers of the soil. In permanently-settled estates, the taluks are held at fixed rates of rent in perpetuity, and are heritable and transferable. Roughly speaking, the entire district is divided amongst the talukdars, most of whom cultivate personally. Where, however, the holding is of any size, or where a person owns more than one, a portion is reserved as *nij-jote* (home farm), and the rest is leased to cultivators, locally called *etmamdars*. An *etmam* is like a taluk, *kamini*, and the rent is not theoretically subject to increase; but, in practice, if a talukdar is

persuaded by a new auction purchaser or otherwise to consent to some small increase, he generally manages to get some corresponding rise in the rent payable by his *etmamdar*. The *etmamdar* is generally a cultivator, but he enjoys the same power as the talukdar of granting permanent leases to under-raiyats. Hence the creation of "*dar-etmams* and *kamini raiyati* leases."

The term *noabad* has long been used in Chittagong to denote lands in which the proprietary interest vests in the State, that is to say, all lands which have not been permanently settled. Regulation III of 1828 declared the absolute right of the Government to these *naobad* lands. They were assessed with revenue, and as new lands were brought under cultivation, fresh assessments were made. Between the years 1841 and 1848, all the *noabad* lands were surveyed, whether held by the squatters or encroached upon by the *tarafdars*. The lands of the estates formed in 1793 were defined and separated, and the *noabad* lands were made separate taluks; but a large number was placed directly under the Collector and put under *khas* management. The *nobad* talukdars are permanent tenure-holders within the meaning of the Bengal Tenancy Act, holding under Government as proprietors, but their revenue is subject to readjustment at each resettlement. The last settlement was concluded in 1899 for terms expiring in 1924 and 1925 A.D.

Jotes and jotedar in Rangpur.

190. The Rent Commission described the *jotes* of Rangpur as follows:—The *raiyat*, who holds direct from the zamindar, is called a *jotedar*, and his holding is a *jote*, whatever its size, which may and does vary from one paying a rent of one rupee to one of which the rent is half a lakh. The large majority of *jotedars* have small holdings and are raiyats proper, cultivating their lands either by their own or hired labour or on the system of *adhiari* or halves. But a large number of *jotedars* have raiyats under them, who are called either *chukanidars* or *kurfa prajas*. The *chukanidars*, too, have often tenants under them, and in some cases, especially in the larger *jotes*, there are four or more degrees before we get to the actual cultivator. *Jotes* are saleable, quite irrespective of the term during which they have been held, whether *jotes* held direct from the zamindar or *chukani jotes* which are held from a *jotedar*. If a man gets a *jote* to-day he can legally transfer it by sale to-morrow. Such sales of *jotes* by registered deed or on decree of Court are of daily occurrence.

Jotedars, Chukanidars, etc., in Jalpaiguri.

191. There is a strong resemblance between the interests in land in Rangpur and those found in the Western Duars of Jalpaiguri. A *jotedar* there is a person who holds lands directly under Government. His holding is called a *jote*. He is a tenant with a heritable and transferable title in his holding, vested in him by his lease and by the fact of possession, with the power to transmit his title to those to whom he sublets; he has the right to one resettlement of the land included in his *jote* on the expiry of the term of the existing settlement, but subject to an increase of rent, should Government see fit to enhance. His title to possession of the *jote* is, however, always subject to the superior right of Government as proprietor to resume any portion required for public or other purposes, a proportionate abatement being made in the rental, and compensation allowed for any permanent improvements. The tenant immediately below the *jotedar* is the *chukanidar* or *mulandar*. The tenancy is heritable and transferable, and the rent is liable to variation at the period of resettlement. The tenant is not allowed under the provisions of the *jotedar's* lease to sublet the whole or any portion of his tenancy under pain of immediate forfeiture; but he is permitted to employ *adhiars*. A *chukanidar* cannot be ousted so long as he pays his rent, except by order of a competent Court notwithstanding the fact that he may not have been 12 years on a *jote*. The *adhiar* cultivates the land and pays a portion of the produce as rent. He is often a migratory alien. The rights and obligations of *jotedars*, *chukanidars*, and *adhiars* in the Jalpaiguri district outside of the Western Duars, and in Rangpur, are regulated by the ordinary provisions of the Bengal Tenancy Act.

Tenures in Backergang.

192. Backerganj is famous for the number of its under-tenures. In some parts of the district as many as 18 interests in the land are found to exist inferior to that of the zamindar proprietor. These are—(*1*) *taluk*,

(*2*) *nim taluk*, (*3*) *osat taluk*, (*4*) *dar patni* and *osat taluk*, (*5*) *nim osat taluk*, (*6*) *dar nim osat taluk*, (*7*) *miras ijara*, (*8*) *etman*, (*9*) *mudafat*, (*10*) *howla* or *zimba*, (*11*) *osat howla*, (*12*) *nim howla*, (*13*) *osat nim howla*, (*14*) *dar osat nim howla*, (*15*) *raiyat*, (*16*) *nim raiyat*, (*17*) *osat nim raiyat*, and (*18*) *dar osat nim raiyat*. In other parts are also found tenures such as *shamilat taluks* and raiyati interests like *miras karsha* and *kaim karsha*. The origin of most of these *taluks* and *howlas* appears to have been a grant of a considerable tract of waste land, upon favourable terms as to rent, to some one who undertook to bring it under cultivation. The land was made over to the charge (hence the name *howla*) of the grantee for the purpose of reclamation. If the grant was more than he could cultivate himself, he would sublet a portion, so creating tenures subordinate to his own. Such a system once begun very naturally extended, until the existing state of things has been arrived at. But it must not be supposed that the number of persons having interest in the land is equal to the number of those interests. It often happens that one and the same person holds three or four classes of rights in the same piece of ground. Thus the same person may be *zamindar*, *talukdar*, *howladar* and even *karshadar*. The position is again complicated by the introduction of the *zimma* or *zimba* system. When a tenure-holder or raiyat finds himself unable to cope with his landlord, he transfers his allegiance to a third party; or, in other words, when he is oppressed by his landlord, he seeks the protection (*zimma*) of some one else who is stronger. To him he sells his interests in the land and buys back from him a subordinate interest. He thus makes the *zimbadar* responsible to the real landlord for the rent and he himself escapes the petty tyranny and exactions to which he was subject from that landlord. This system is especially common in estates whose proprietors are numerous: the tenure-holder finds himself in difficulties with so many masters and prefers to make one of them (generally the strongest) his *zimbadar*.

All tenures of whatever grade are heritable, transferable, and permanent with the exception of a few modern creations with written contracts containing contrary conditions. By the general custom in the district the rent of all tenures in the district is presumed to be fixed unless the contrary is proved. The number of subordinate tenures in this district is about half a million, of which the vast majority were recorded in the record-of-rights recently prepared as held at fixed rent.

The aimas and mandali jotes or tenures of Midnapore.

193. The *aimas* of Midnapore are creations subsequent to the Permanent Settlement. They are grants made by the proprietor at a low rent for the purpose of bringing jungle land under cultivation. They exist mostly in the estate of Balarampur which was purchased by Government in 1837 at a sale for arrears of revenue. The *aimadars* were not *bonâ fide* cultivators, but mostly capitalists who took the *aimas* as a speculation. As a rule, the individual *aima* exceeded 1,000 bighas in area. In 1875, when the estate came under resettlement, the Settlement Officer, Mr. Price, treated the *aimadars* as tenure-holders and settled fair rents for the actual cultivating raiyats under the *aimadars* giving them the status of occupancy raiyats. Most of the *aimadars* accepted this, but one of them brought a civil suit claiming to be an occupancy raiyat and obtained a decree to this effect from the Court. In view of this the settlement was revised, but the question of the status of the *aimadars* was not clearly settled. On the estate again coming under settlement in 1904, the Board of Revenue, on full consideration, declared that the *aimadars* were tenure-holders as defined by the Bengal Tenancy Act. At the district settlement all the *aimas* were recorded as permanent tenures in some cases liable to enhancement and in other cases at a fixed rent.

In parts of Midnapore bordering on the Jungle Mahals there is a class of tenure-holders termed *mandals*. They were originally substantial raiyats, or *abadkars*, who undertook to bring a tract of waste land under cultivation, paying the zamindar a stipulated sum as rent. These *abadkars* then reclaimed the land either themselves, or with the help of other raiyats whom they induced to settle under them; established a village, to which they usually gave their name; and, being heads of the settlements, were called *mandals*

or head-men. The zamindar and the *mandal* from time to time readjust the terms of their bargain, but the former never interferes between the latter and his under-tenants. In the settlement proceedings of 1839 these *mandals* were declared to have only the rights of *sthani* or *kudkasht* raiyats, and not to be entitled to any *munafa* or profit, though not exactly recognized as talukdars, they gradually acquired rights superior to those of ordinary *khud-kasht* raiyats; and as they were left to make their own terms with the raiyats settled by them, they must have had a very considerable profit besides what they obtained from any land cultivated by themselves. Their *mandali* right became transferable by custom, and when at settlement they came into immediate contact with Government, though not recognized as regular talukdars, they were held entitled to consideration. The Government in settlement proceedings deducted 15 per cent. from the gross *jama* in their favour, and after some demur they accepted this as a sufficient recognition of their status.

Upanchaki tenures of Rungpur.

194. In Rangpur a permanent tenure is found which is called "Upanchaki." It is a collective name for lands granted for religious services under the well-known names of *debattar, pirpal, chiragi*, etc. A nominal quit-rent is paid for it. It is hereditary and transferable.

Service tenures or holdings, chaukidari and chakran.

195. Besides the tenures described in the preceding paragraphs, derived either from ancient rights, or created to relieve the zamindar of the trouble and risk of direct management, or of the labour and expenditure required for reclaiming waste lands, there are various service (*jagir*) tenures, of which the *chaukidari chakran, thanadari* or *phanridari chakran, patwari jagirs* and *ghatwali* tenures are the most important. The *paikan jagirs* of Midnapore are also noticeable.

Before the advent of the British, the zamindars not only defended the country against foreign enemies with armed retainers, but also administered the law and maintained peace and order with a large force of rural police known as *thanadars* or *phanridars, chaukidars, paiks*, etc., who helped in protecting the property of the zamindar, in collecting his revenue and in doing other services personal to the zamindar. All these officers were at that time servants of the zamindars appointed and removed by him, and often remunerated by grants of land rent-free or at a quit-rent in consideration of their services. The lands so enjoyed were called *chakran* or service lands. The effect of the Decennial Settlement was to divide them into two classes—(1) *thanadari* lands, which, by Regulation I of 1793, section 8, clause 4, were made resumable by the Government; and (2) all other *chakran* lands, which by Regulation VIII of 1793, section 41, were, whether held by public officers or private servants in lieu of wages, to be annexed to the *malguzari* lands and declared responsible for the public revenue assessed on the whole estate. A service tenure, created for the performances of services, private or personal to the zamindar, may be resumed by him when the services are no longer required, or when the grantee of the tenure refuses to perform them. A zamindar is, however, not entitled to resume when the grant is for services of a public nature. The duty of protection having now entirely devolved on Government, the policy at present is to resume and assess all such lands as are resumable, and, accordingly, they are being converted—usually by amicable arrangement—into ordinary tenures.

The *chaukidari chakran* tenures are described and dealt with in Act VI (B.C.) of 1870, and land ceases to be *chaukidari chakran* when Government transfers it to the zamindar.

The *thanadari*, or *phanridari*, tenures of Hooghly have been dealt with under special rules.

The *paikan jagirs* of Midnapore were, in some instances, resumed, but were afterwards abandoned in favour of the zamindars. The latter are responsible to Government for the efficient service of the *paiks*, who are appointed and removed by them, preference being given to heirs of old incumbents.

Ghatwali tenures.

196. *Ghatwali* tenures exist in the districts of Birbhum, Bankura and Burdwan. These tenures may be generally divided into two classes, *viz.* (1) tenures granted for a species of military service to be rendered by

guarding the *ghats* or passes on the western frontiers of Bengal, and (2) tenures granted on condition of rendering police service. A small quit-rent is generally paid by the *ghatwals* to the zamindar, in addition to the service rendered. Of recent years extensive resumptions have been made of these tenures in the districts of Birbhum and Bankura on an amicable basis, the *ghatwals* being released from rendering service, and recognized as subordinate tenants with rights of occupancy, while the lands have been assessed to revenue and settled with the zamindars. The larger Birbhum *ghatwals* have been separately dealt with by legislation (Regulation XXIX of 1814 and Act V of 1859) and are held directly under Government.

Revenue and rent-free tenures.

197. In addition to all the above tenures there are numerous small plots of land held revenue-free, the large majority of which were granted by former Governments, or zamindars under those Governments, as benefices or religious endowments—grants which have since been recognized and confirmed by the English Governments.

Lakhiraj tenures.

198. *Lakhiraj* grants are of two kinds—*bahali*, that is, confirmed, and *bazeapti*, that is, resumed and assessed at favourable rents. *Bahali lakhiraj* tenures are again subdivided into *badshashi* (royal) and *hukumi* (granted by officials). The former, with their sub-tenures, are known by various names, such as *altamaha*, *aima* and *madadmash*, while the latter are distinguished by such names as *brahmottar*, *debattar*, *mahattran*, etc. The owners of the *bahali lakhiraj* tenures, although exempted from paying any revenue, are held liable to pay local cesses of general application.

The principles according to which the British Government dealt with these *lakhiraj* grants are given under the head "Resumption Proceedings" at the beginning of this section.

Revenue-free grants created by the British Government fall under two heads, that is—

(1) railway and other lands sold in fee simple, and

(2) petty estates, the revenue of which has been allowed to be redeemed by the payment of their capitalized values.

Following the example of former Governments in creating revenue-free grants, the zamindars also have created many rent-free tenures on their estates in favour of Brahmins for religious and other purposes, to relatives and dependents for maintenance, and to servants for service. These are not recognized by the Government.

Raiyati tenures.

199. Raiyats were formerly divided into two classes—*khudkasht* (resident) and *paikasht* (non-resident). The Bengal Tenancy Act abolishes this distinction, defines the raiyat as primarily a cultivator, and establishes three classes—raiyats at fixed rates of rent, occupancy raiyats, and non-occupancy raiyats. Settled raiyats are those who have held land continuously in a village for 12 years and they have an occupancy right in all the land which they hold. The Bengal Tenancy Act also recognizes a class of under-raiyats but assumes them to be entertained by the raiyat merely for a period. At the time the Bengal Tenancy Act was passed, the majority of the cultivators would have been classified as raiyats under the Act. This is now very far from being the case. The more prosperous raiyats have bought up the lands of their neighbours and sublet them. As their property has increased they have ceased to cultivate all but a small portion of their original holding. Sometimes they have sublet the whole. In Jessore there are often three or four grades of under-raiyats, though in the rest of Bengal two grades are uncommon. In Tippera and Noakhali the raiyats have paid *salami* to the landlords on a large scale and elevated themselves to the position of permanent tenure-holders at fixed rents. In other parts of Bengal the tenants are clever enough to recognize that the status of a settled raiyat is superior to that of a permanent tenure-holder in some respects and certainly to that of a temporary tenure-holder. In some cases even they have found that the Courts gave them less protection as raiyats at fixed rates than as settled raiyats. Hence in all settlement proceedings and civil cases, the purchasers of occupancy holdings and middlemen of the cultivating class have fought for the status of settled raiyat as opposed to the status of tenure-holder.

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Usually in doubtful cases the Courts, following the principle that once a raiyati holding always a raiyati holding, have given their verdict in favour of the middlemen. The Settlement Courts have done so, much less readily, because they realize that to record the landlord as a raiyat means recording his under-tenants as under-raiyats. This class has no solid protection under the law as it now stands and the result is that a large number of the real cultivators of the soil are tenants-at-will. In the Dewanganj thana of Mymensingh, which was originally a part of Rangpur, the question of the status of the *jotedars* was fought, up to the High Court, in many most difficult cases. Finding that the wording of their contracts debarred them from being regarded as permanent tenure-holders, the majority of the *jotedars* filed petitions of compromise stating that they were raiyats. The compromises were, as a rule, accepted, the prominent *jotedars* of Patiladaha pargana having in the meantime filed a petition stating that their under-raiyats possessed by custom all the privileges of heritability and permanence which they themselves enjoyed under the Tagore Raj.

The Bengal Tenancy Act protects raiyats from eviction, except by the Civil Court on a decree for arrears of rent, and places limits on the enhancement of rent. As a result rents are not generally excessive in Bengal. The under-raiyat is not protected against eviction, and the protection afforded against excessive rental has been rendered nugatory in the law courts.

There has been a large increase in recent years in the number of tenancies held at produce rents. Sometimes the rent is a fixed amount of produce, *e. g.*, five maunds of paddy per acre. More usually it is one-third or one-half of the crop. Sometimes the landlord supplies the cattle and implements of agriculture, sometimes the seed only, sometimes nothing at all. The produce paying tenant is not protected from enhancement of rent and he is regarded by the landlords as a tenant-at-will, though in fact he can keep the land as long as he likes, and his father or grandfather may have paid a cash rent for the same lands. The Settlement Officers of Bakarganj, Faridpur, and Dacca laid great stress on the economic disadvantages of this system of cultivation in their final reports and, in fact, regarded the finding of means for its restriction or suppression as the most urgent duty of the Legislature. Under the existing law, produce paying tenants under tenure-holders are raiyats and can apply for commutation, but the privilege is seldom claimed. The facilities which settlement operations have offered to such applications are the main grievances of many landlords against these operations, and it is the apprehension that commutation will be applied for, which has hastened the rapid growth of the contention, which is now fairly common throughout Bengal, that the cultivators known as *adhiars*, *bhagchasis* or *bargadars* are not tenants at all but labourers or co-partners.

Utbandi tenures.

200. The Rajshahi settlement was the first to encounter many tenancies of the special class known as *utbandi* which are recognized in section 108 of Act X of 1885. According to that section an *utbandi* tenant cannot acquire an occupancy right unless he has cultivated the same land continuously for 12 years. The system was apparently devised for lands which, owing to their barrenness, were not capable of continuous cultivation and in those parts of Nadia where the system has suffered least change, the fields are all cultivated for three years. It might be argued, therefore, that in such areas 12 years' continuous cultivation meant 12 or more years' cultivation subject to the necessary period of fallowing. This was originally the opinion of the High Court but Government interpreted the latest ruling otherwise, and decided that occupancy rights could not be acquired in any particular land until it has been cultivated for 12 continuous years, and that as soon as it was left for a year it relapsed into the *khas* possession of the landlord. In Nadia one-third of the district is covered by *utbandi* tenancies, some of which have none of the characteristics of *utbandi*. In some cases rent is paid for all the lands every year and the tenant has acquired an occupancy right, though neither he nor the landlord was aware of it. Generally speaking, the same tenant goes back to the same lands year after year and generation after generation, and the fields have definite boundaries. All that happens is that the landlords' staff annually note in their papers which fields are cultivated and which not, and assess the rent accordingly.

The settlement operations began in Nadia in 1919 and the Settlement Officer was at once met with innumerable difficulties in preparing his record. The entries which he decided to make created keen controversy among the landlords and the problem was brought to the attention of Government in a letter from the British Indian Association. Government replied that if the landlords had dispensed with many of the characteristics of the system for their own advantage, they should give some *quid pro quo* to the tenants and proceed to convert the tenancies into ordinary raiyati holdings by compromise. The problem has again been discussed by the committee appointed to consider the Tenancy Act and it has recommended that machinery should be introduced at once by legislation for the conversion of all lands held on the system of *utbandi* into raiyati holdings, at a uniform annual rent on the application of either the landlord or the tenant.

SYSTEM OF SURVEY.

Demarcation or thakbast Survey.

201. Almost the whole of the Presidency has been surveyed so as to show the boundaries of each village and estate; but in the last century there was no field measurement except in a few limited tracts. The boundary survey was in two parts—(1) the Thakbast Survey and (2) the Revenue Survey. The Thakbast Survey preceded the Revenue Survey by a year and was made by a demarcation department, whose business it was to define the boundaries of villages and estates and to make a compass-and-chain survey of them. The main object of this *mahalwar* survey was to secure the existing revenue by determining the boundaries of estates (*mahals*), each of which is hypothecated for a certain amount of revenue. Maps were prepared from this survey for the permanently-settled tracts of the province; the ordinary scale is 16 inches to the mile.

The maps prepared before 1850 were usually very rough and often mere eye sketches, which do not show the boundaries between estates within the village. Maps prepared after 1850 are prepared to scale and show the boundaries of estates within the village. Where these estates are numerous as in the Dacca and Presidency Divisions, the maps are often almost cadastral in their appearance. These maps vary greatly in quality. The fitting of the estate *chaks* within the village boundary is at the best an approximation while the village boundary itself though exactly surveyed has not always been accurately mapped.

The Revenue or Village Survey.

202. The demarcation was followed by a professional survey, with the object of making a scientific survey of the village boundaries and accounting for each acre of land and preparing a map (usually on the scale of 4 inches to the mile), showing the geographical and topographical features of the country. The whole of the work, both of the demarcation and the professional survey, was carried out at the expense of Government although the Government derived no additional revenue and no direct advantage therefrom. The surveyors, in making the survey of the village boundaries, were guided by the marks put up at the time of demarcation at every bend and turn of the boundary. Unfortunately, there were no permanent marks round the boundaries of the villages or estates in Bengal, and no provision then existed for compelling landholders to set them up and keep them in order. The consequence has been that the marks have been obliterated and the use of the survey has for practical purposes been greatly impaired.

This survey, which took 43 years to complete is known as the Revenue Survey. It is still the authoritative survey in the province and until recently was the sole basis of all topographical maps and administrative units of jurisdiction. In 1888 the first district settlement undertaken under Chapter X of the Bengal Tenancy Act began in Chittagong and on its completion Bakarganj, Faridpur, Jalpaiguri, Mymensingh, Dacca, Midnapore, Noakhali, Rajshahi, Tippera, Jessore, Bankura and Nadia were taken up in the order named. Following a professional traverse by the Director of Surveys, cadastral maps on the 16-inch scale have now been prepared for all the villages in these districts and for many purposes they have taken the place of the older

maps. In some cases the revenue survey units have been abandoned under the authority of the Board of Revenue in accordance with the provisions of sections 19A and 115 of the Tenancy Act. In some districts the revenue thana has been superseded by the existing units of police administration and the new jurisdiction lists published on this basis.

In addition to the districts named above, the main river beds, or *diara* areas, of all the big rivers in the province have been surveyed and the districts of Pabna-Bogra, Khulna, Birbhum, and Murshidabad have also been begun. By the end of 1921 the Dacca and Chittagong divisions (except the Chittagong Hill Tracts) had been completed and the area for which cadastral maps are available amounts to 48,671 square miles or 63 per cent. of the whole province.

This has not been the achievement of one party. In 1907 the survey and settlement staff which had completed Chittagong was increased to three parties, each taking up one block of about 800 square miles in three districts simultaneously, and in 1915, a programme by which the whole of Bengal would be finished in 1929, was sanctioned by the Government of India. During the war, the programme was practically stopped and in 1921 financial reasons necessitated a further reduction to a two-party programme. Unless further changes occur the operations cannot now be expected to come to a conclusion before 1939.

In Bengal, except in the numerous villages which are subject to continual alluvion and diluvion, the boundaries of fields seldom undergo change. Nevertheless, divisions between the heirs of Muhammadan raiyats are extremely common and lands are continually being acquired for new roads and railways and other schemes of public importance. As a result there is an increasing tendency for the maps to become out of date in a comparatively short period of time. The Government of India contemplated originally that the record-of-rights, which had been prepared at great cost and with unremitting care would be maintained or subjected to a system of decennial revision. Various schemes on this behalf have been drawn up and considered, beginning with the special inquiry of Mr. Hughes Buller in 1908 as regards the Chittagong district. The District Administration Committee of 1912-13 decided that maintenance was impracticable in the complicated conditions of land tenure in Bengal and preferred a scheme of revision. Even revision is outside the range of practical politics at present, and until a record-of rights has been prepared in all the remaining districts of Bengal, it is doubtful whether it should be undertaken; and if it is undertaken in any district which has been completed more than 10 or 12 years previously, it will cost nearly as much as the original survey and settlement operations.

Professional Surveys.

203. In addition to the main surveys described above, there have been some special surveys undertaken by professional agency in the province. The chief of these was the Diara Survey, which was undertaken in order to show the changes created by fluvial action on the banks of the Ganges and Brahmaputra. The first of these surveys in the Rajshahi division covered the Ganges as far as Kushtia in 1871-72. The work was resumed in the Dacca division in 1879-80 and proceeded as far as Bandarkhola in Faridpur. In 1880-81 the Jamuna (or Brahmaputra) was also surveyed from Goalundo for 20 miles upstream to Bangaon (a great trigonometrical station) and in 1881-82 a survey was made of a narrow strip of land on both sides of the Hooghly river, from the northern boundary of the 24-Parganas to the mouth of the river. The professional agency was then discarded and further surveys of all these rivers were handed over to the settlement parties in connection with their task of resuming lands never permanently settled under the provisions of Act IX of 1847.

A revision survey in Midnapore was completed in 1886 which covered six entire parganas and demarcated 14,425 villages.

A survey of the town of Calcutta was made in the years 1886 to 1894 under a special Act (I of 1887) of the Bengal Council. It was made in the interests of both Government and the Corporation.

A topographical survey of the Sundarbans was made in 1905-08 for the purpose of preparing an accurate and authoritative map of the reserved forests. The area surveyed was 1,688 square miles in the 24-Parganas and 2,264 square miles in Khulna.

Since 1912 in addition to minor work the following special survey has been completed:—

Scale 50 feet to 1 mile—Calcutta and the surrounding Municipalities (including Howrah but excluding Garden Reach). The area covered on this large scale is well over 50 square miles.

No noticeable change in the system of survey or the preparation of cadastral maps has occurred since 1912.

Standards for checking and adjusting chains and magnetic compasses have been erected at the following places:—

(1) Dacca, (2) Mymensingh, (3) Comilla, (4) Survey School at Mainamati, Comilla, (5) Noakhali, (6) Jalpaiguri, (7) Rampur Boalia (Rajshahi), (8) Midnapore, (9) Alipur, 24-Parganas, (10) Chinsura, Hooghly, (11) Howrah, (12) Bankura, (13) Burdwan, (14) Jessore, (15) Krishnagar, Nadia, (16) Rangpur, (17) Dinajpur, (18) Kalimpong, District Darjeeling, (19) Pabna, (20) Bogra, (21) Khulna, (22) Berhampur, Murshidabad, and (23) Suri, Birbhum.

These standards should be valuable in eliminating many of the errors to which the work of surveyors on the District Officers' and Khas Mahal staff were liable.

The first survey of Bengal (1764-76) by James Rennell, has received considerable attention in the office of the Director of Surveys and his unpublished maps have now been published and analytically described

SYSTEM OF SETTLEMENT.

204. In Bengal the greater part of the area has been settled in perpetuity, and no fiscal advantage can be obtained from settlement proceedings. There are, however, tracts which are not under permanent settlement, in which the revenue may be periodically revised. These tracts consist of waste lands such as the Sundarbans, which were not included in the Permanent Settlement, acquisitions by conquest or treaty since the time of the Permanent Settlement such as Darjeeling and the Western Duars, islands thrown up since the Permanent Settlement in large and navigable rivers, estates escheated or forfeited to Government or purchased by Government at sales for arrears of revenue. In all these tracts the proprietary right vests in Government, and unless that right has been expressly alienated, they form what are technically called " Government estates." In addition there are other lands of which the revenue has not been permanently settled, but which belong to private proprietors and not to Government. The chief of these are alluvial accretions subsequent to the Permanent Settlement, and those portions of the Government estates in which Government has alienated the proprietary right. These are technically known as " temporarily-settled private estates."

205. The conditions of land tenure in the Government estates are very diverse. In some, Government deals direct with the cultivators, in others either by accident or by design it deals with small middlemen, in others again permanent lessees have acquired permanent rights over the whole or large portions of an estate and are proprietors in everything except the name. This diversity is due to the long conflict between two rival theories regarding the disposal and management of Government estates. One theory was an inheritance from the policy of the Permanent Settlement, and aimed at freeing Government from all concern in the management of land by the establishment of a class of land-owners on the English model, whose rights in their property should be absolute subject to the payment of a revenue fixed in perpetuity. The other theory advocated that Government should " stand forth as dewan " Government estates.

and deal direct with the cultivators in those parts of the province in which the absence of a Permanent Settlement made it still possible.

The general principles now in force are in favour of direct management of Government estates and have been thus described in the Report on the Land System in Bengal, Bihar and Orissa of 1882-83:—

"Estates coming into the hands of Government were originally either permanently settled or sold outright. This policy was changed in 1871, in which year it was ordered that temporary settlements only should be allowed, and that, where sales appeared to be expedient, the estates should be first settled for terms of years and then sold subject to a revision of the Government revenue on the expiration of the terms of settlement.

The above procedure, however, seemed to be of questionable legality, and in 1875 the Government, at the suggestion of the Board of Revenue, ruled that an estate should be considered as suitable for direct management—

(1) if it was of sufficient extent and cultivation to support a tahsildari establishment;

(2) if, though not yielding a revenue sufficient to cover such expense, there was a reasonable expectation that its gross rent could be increased by improvement, extended cultivation or otherwise to the amount;

(3) if, though not sufficient in extent or rental alone to find employment, or funds, for a separate establishment, it was so situated as to be capable of being incorporated with one or more similar Government estates, so as to form a compact tahsildari circle;

and that similar isolated estates might still be retained under direct management, if their situation near the headquarters of a district or a subdivision was such as to allow of their proper supervision by the Government officers. Smaller estates, not admitting of such supervision, were to be sold after survey and settlement, in which the rights of all classes of cultivators were to be recorded, and the estates so sold were to be transferred to their new proprietors with the revenue fixed in perpetuity.

These orders were subsequently altered and the following classes of Government estates are not now ordinarily sold:—

(*a*) Estates situated near the headquarters station of the district.

(*b*) Estates likely to be increased in value by alluvion.

(*c*) Estates susceptible of inclusion in a convenient scheme of tahsildari management.

(*d*) Estates which though not conveniently situated for direct management can be leased without objection.

(*e*) Estates leased for a term of which a long period has yet to run.

(*f*) Fisheries, especially when their boundaries cannot be accurately defined.

(*g*) Estates of which a survey and settlement have not been made and a record-of-rights has not been prepared.

The following two classes of estates are ordinarily sold:—

(*a*) Government shares in joint undivided estates.

(*b*) Small isolated estates, in which the cost of management is out of proportion to the demand, unless they are liable to increase by alluvion.

With regard to the terms on which estates should be sold, it has been ruled that—

(*i*) Government estates, which yield a gross rental of less than one rupee should be sold revenue-free at an upset price of thirty times the rental, and

(*ii*) Estates yielding a gross rental of one rupee or more, will be sold subject to the payment of revenue on the following principles:—

(*a*) if the estate was settled permanently in 1793, and accordingly formed part of the permanently-settled

tract, the revenue will be fixed in perpetuity according to the provisions of section 6, Article V of Regulation I of 1793 (the revenue will ordinarily be fixed at the amount of the present rent, *i.e.*, the rent actually payable without any deduction on account of collection charges); and

(*b*) if the estate was first formed subsequent to 1793 (as in the case of accretions) and accordingly was not included in the permanently-settled tract, the revenue assessed will be liable to revision at each successive settlement and will be fixed in accordance with the provisions of Regulation VII of 1822 and the principles laid down in Part III, Chapter III of the Bengal Survey and Settlement Manual, 1917.

The upset price of estates sold, subject to the payment of revenue, is to be ordinarily twice the amount of the revenue.

Subject to these conditions it is now the rule that Government estates should, as far as possible, be retained under direct management, so that the officers of Government may be enabled to gain a practical knowledge of the progress of agriculture, of the extent to which the productive powers of the land have been developed, and of the increased money value of the produce. It is hoped that the result will be a system of enlightened management which will become a model for imitation by zamindars throughout the province.

The modes of management are—

(1) by officers of Government, such as Deputy or Sub-Deputy Collectors, kanungos and nazirs, as part of their ordinary work, without extra remuneration;

(2) by special managers, with the assistance of suitable collecting establishments;

(3) by ordinary tahsildari establishments, working under the Collector, Deputy Collector or Sub-Deputy Collector, as the case may be; and

(4) by special tahsildari establishments under the direct supervision of the Collector.

Of these, the system adopted in Chittagong, corresponding to the tahsildari system of the United Provinces of Agra and Oudh, is the most deserving of notice. The chief features of the scheme, which was devised after much consideration and discussion by Government and the Board, and which eventually received the approval of the Secretary of State are as follows:— The *noabad taluks*, numbering about 35,000, and *jotes* which are scattered all over the district, are parcelled out into five circles. The division is adopted with reference to geographical limits and facility of communication by land and water. The circles are, therefore, of unequal proportions. Each circle is in charge of a khas tahsildar who is either a Deputy or Sub-Deputy Collector. At present they are employed in the collection of rent, disposal of certificate and *noabad taluk* land registration cases, and general management work. Their services can also be utilized for general administrative work in the district. Management under a system of this kind results not merely in strengthening the hold of Government over the district, but also in effecting a large saving of expenditure, since no outsider would consent to manage these estates for what it now costs Government.

The Settlement Regulations in khas mahal and temporarily-settled estates.

206. The settlement and adjustment of rent of all temporarily-settled estates, whether Government or private, were regulated by the procedure laid down in Regulation VII of 1822. The main object of the Regulation was to "revise, through the agency of the Collectors or Settlement Officers, the *jama* payable to Government after a full enquiry into, and careful settlement of, the rights and interests of all classes connected with the land," but the requirements laid down by this Regulation were never carried out satisfactorily. Considerable difficulty was felt in "ascertaining the amount of

the *jama* payable by raiyats in any *mahal* under settlement on an ascertainment of the quality and value of actual produce, or on a comparison between the cost of production and the value of produce." Accordingly, by Regulation IX of 1833, the principle of assessment, based on customary rent, was adopted. The basis of calculation was the rate of the rent actually paid by a large class of tenants, or the rent paid for land of similar description and under similar circumstances in places adjacent. But the principle was not long adhered to, and the value and capabilities of land began again to be taken into consideration since 1837.

Although these Regulations are still in force, they are now mainly used for the special purpose of settling the revenue of proprietors in temporarily-settled private estates. For other purposes they are in modern days inadequate, as they do not permit of the fixing of fair rents for tenants, unless by agreement. The rents of tenants are now periodically revised under the provisions of Chapter X of the Tenancy Act, which require as an indispensable preliminary a survey and a record-of-rights and then permit the determination of rents which shall be binding on all classes of tenants. The term of settlement varies. Under the Tenancy Act it cannot be less than 15 years in the case of occupancy and five years in the case of non-occupancy raiyats. The revenue of a private proprietor in a temporarily-settled estate is fixed by rule at 30 per cent. of the assets of the estate.

In revising the land revenue of the temporarily-settled area, whether Government estates or temporarily-settled private estates, the following are the principles in force :—

I.—No estate of any kind (save those described in the next following clause) is to be settled in perpetuity without the express sanction of Government in each case, unless the holders have a statutory right to such settlement.

II.—Very petty estates which, though cultivated, pay less than one rupee land revenue per annum may be sold revenue-free for ever, being put up at an upset price of thirty times the annual *jama*, or sold by special bargain to the cultivator in possession at not less than the above rate.

III.—Alluvial accretions to private estates should be settled separately for a term of years, each accretion with the estate-holder to whom it may belong.

IV.—No settlement or resettlement should be concluded without first making a survey or revision of survey and a complete record-of-rights of the whole estate. The Government of India has recently issued orders that these revisions must on no account be deferred without special sanction for periods of more than 35 years in all.

V.—Ordinarily Government estates should, as existing leases or other arrangements fall in, be settled—(*a*) with the people on the ground, tenure-holders or village headmen, or raiyats where this can be done, or (*b*) with a farmer, but this only in very exceptional cases.

VI.—Until the survey and record-of-rights necessary to a resettlement can be completed, existing leases may be extended from year to year.

Grant for the management and improvement of Government estates.

207. An annual allotment of 12 per cent. of the collections in Government estates is made by the Government for management and improvement of such estates, and, under present arrangements, is distributed as follows :— 1 per cent. is given to the Director of Public Instruction for purposes of education in or near the estates; 1½ per cent. is made over to the District Boards for roads and communications; and 9½ per cent. is allotted to the Board of Revenue for—(*a*) management proper and (*b*) agricultural, sanitary and miscellaneous improvements in the estates. A further grant, originally intended for public works of an agricultural nature, is made annually to the Board of Revenue which is utilized in improvements generally.

In a few districts the temporarily-settled area is sufficiently large to make the principles of its settlement and revision a matter of importance. The chief districts are Chittagong, Darjeeling, the Western Duars in Jalpaiguri, and the Sundarbans.

Chittagong.

208. The occupied lands of the Chittagong district were first measured in 1764. The assessments upon the area (with the exception of Jainagar estate) thus ascertained were declared permanent by Regulation I of 1793. In 1797 it was discovered that the owners of a large estate had attempted, by a forged deed, to usurp possession of all lands excluded from the original measurement. The upshot of the long correspondence and litigation which followed, extending over no less than 40 years, was a regular temporary settlement of all the cultivated lands of Chittagong not already permanently settled.

The first step was an exact definition of all the lands to which the zamindars were entitled by virtue of measurement of 1764 and the terms of the permanent settlement; as also of all revenue-free tenures, whether valid or invalid. The remainder was considered as *noabad* land. The expression *noabad* properly means newly-cultivated land. In Chittagong it means all land not measured in the original measurement of 1764, or, in other words, all land which was lying waste and in nobody's possession at the time of the measurement. This land is the property of Government. In the settlement of 1848, concluded by Sir Henry Ricketts, every *noabad* holding was made into a separate tenure or taluk and assessed without reference to any permanently-settled land which might be held along with it. The maximum rate of assessment was Rs. 2-4-6 an acre. This rate was reduced wherever circumstances made a lighter assessment necessary. The average rate on the 286,095 acres assessed (cultivation and waste together) was Re. 0-11-3 per acre, giving a total revenue of Rs. 2,00,826. At the time of settlement the Government demand was estimated to be equivalent to 16 per cent. on the value of the gross produce.

At the same time *lakhiraj* or revenue-free tenures were investigated, and lands held on invalid tenures were resumed. Their assessment amounted to only Rs. 75,605. Certain other *lakhiraj* lands had been compounded for at Re. 1-1-9 per acre, subsequently reduced to Re. 0-13-9 per acre, and these yielded Rs. 13,708. The area of all *lakhiraj* lands, resumed and revenue-free, including waste, was 111,223 acres. Adding together the assessments imposed on *noabad* and *lakhiraj* lands, the total increase to the revenue of the district, effected by the settlement of Sir Henry Ricketts, would appear to have been Rs. 2,90,169. No less than 89,389 separate settlements were made, 79,586 of which related to new mahals, *lakhiraj* or *noabad*, mostly of minute size, and intermingled with each other and with permanently-settled lands in a most complicated manner. On the introduction of the settlement, leases were given to "circle farmers," who were to receive a commission on the revenue collected by them from the petty estates of their circles; but this, on the expiry of the terms, was replaced by a system of khas management.

The *noabad* holdings, in which the proportion of jungle was very small or *nil* were settled for 50 years; while those in which the proportion of jungle was considerable were settled for 25 years only. On the expiry of this term, the resettlement of these taluks was undertaken in 1875. The former Government revenue of these 25-year taluks had been Rs. 43,898, and this was raised by the new settlement to Rs. 1,14,801. The cost of the operations was $3\frac{1}{4}$ lakhs of rupees, and the proceedings occupied seven years in completion. The term of resettlement of these 25-year taluks was fixed so as to terminate in 1898, that being the year in which the settlement of the 50-year *noabad* taluks expired.

The previous settlement of the lands in old Thana Ramu having expired a survey and records-of-rights under the Bengal Tenancy Act was begun in 1888. At first merely Government lands were dealt with, but subsequently all the lands in the thana were included within the scheme. During the assessment in this area the status of a *noabad* talukdar was determined to be that of a tenure-holder.

With a view to provide for the readjustment of the Government revenue on the expiry of the existing settlements, and also to remove the uncertainty regarding boundaries which existed in private estates, notifications under section 101 (*1*) of the Bengal Tenancy Act dealing with the rest of the district of Chittagong, thana by thana, with the exception of the permanently-settled lands in the island of Maiskhal, were issued on various dates beginning from 1889. The proceedings thereby instituted were completed throughout the district in 1898, the cost incurred being Rs. 16,16,204. The total area of the district is 2,492 square miles, of which 2,003 square miles were surveyed, the remainder consisting of forests, waste land lots and one large permanently-settled estate. The revenue of the temporarily-settled portion of the district, not including the estate Noabad Taraf Jaynarayan Ghosal, was increased from Rs. 3,85,210 to Rs. 66,00,537. Of the gross increase of revenue amounting to Rs. 2,16,793 (not deducting decrease), Rs. 1,50,019 were obtained from talukdars, Rs. 3,405 from farmers and Rs. 63,369 from raiyats paying rent direct to Government. The following statement exhibits the increase in rent-rates per acre produced by the settlement:—

	Former rate.	New rate.
	Rs. A.	Rs. A.
Talukdars (tenure-holders)	2 0	2 13
Ijaradars (farmers)	1 12	2 9
Under-tenure-holders	3 4	3 9
Settled raiyats	4 14	5 0
Occupancy raiyats	2 15	3 2
Non-occupancy raiyats	2 11	2 12
Under-raiyats	5 8	5 13

The settlement was confirmed by the Government of India for a period of thirty years.

The *noabad* talukdars were the most important class of tenants found upon the Government estates. They are tenure-holders, who hold directly under the Government as landlord for terms of years. At the expiry of such term, the talukdar is entitled to resettlement of such portion of his taluk as is cultivated, and at such rent as Government may fix. The total number of taluks settled during the recent operations was 34,666. Of these, 32,601 taluks had been settled in or about 1848 for terms of 50 years, 1,873 had been settled at the same time for shorter terms and resettled in 1882, while 192 were new taluks which were created during the recent settlement. The method followed in settling the rents of these taluks was to ascertain the rental of their raiyats, and, after adding to this sum the annual rent valuation of any lands in the direct occupation of the talukdar, to fix the new rent at such percentage of these assets as seemed equitable. In the case of 32,601 taluks first mentioned the assets were fixed at Rs. 4,86,031, and the rents of the talukdars were settled at Rs. 2,86,353. The balance of Rs. 1,99,678, or 41 per cent. of the assets, represents the profit left to the talukdars. In numerous instances, however, a portion of these profits was intercepted by under-tenure-holders, who occupied the position of middlemen between the talukdar and the actual cultivators. The rents of all these under-tenure-holders were settled, as in the case of the talukdars, at a percentage of the assets of the under-tenure, calculated as above described. If, then, a talukdar had sublet his entire taluk to an under-tenure-holder, who in his turn had sub-let to raiyats for an aggregate rental of Rs. 100, the under-tenure-holder's right might be settled at Rs. 85 and the talukdar's at Rs. 60. In that case the actual profit which would reach the talukdar would be Rs. 25. As the result of the settlement in the case of these 32,601 talukdars, the talukdars actually receive Rs. 4,44,230, the balance of Rs. 41,801 being absorbed by under-tenure-holders. The rents of farmers were fixed on the same principles. The rents of raiyats were but little enhanced, though additional rents were imposed on increased areas. In the case of large enhancements, liberal terms were allowed, the rents being gradually enhanced. The result of the settlement was to enhance the rents of talukdars by 65 per cent., of farmers by 10 per cent., of under-tenure-holders by 33 per cent., of settled raiyats by 17 per cent., of occupancy raiyats by 7 per cent., and of under-raiyats by 10 per cent.

Since the conclusion of this settlement, the unoccupied land still at the disposal of Government has been brought (since 1908) under examination by a system of annual "Extension" surveys, and all land ascertained to have been subsequently occupied is brought under assessment at rates fixed for each village by the Collector. The additions on this account to the revenue have amounted to two lakhs of rupees approximately.

Western Duars.

209. The Western Duars of Jalpaiguri were obtained by conquest from Bhutan in 1864, and the first settlement of them was made for seven years in 1872 at a cost of Rs. 42, 822, resulting in a net increase of revenue of Rs. 33,196 on a total area, including forests, etc., of about 1,636 square miles. In the course of an enquiry in 1874, during the settlement of South Maynaguri, it was found that the maps were inaccurate, the records untrustworthy, and that nothing but a revision of the whole settlement would suffice. A resurvey and settlement was, therefore, ordered at the close of 1875, and carried out at a cost of Rs. 1,16,520. The total area of the Duars was found to be 1,913 square miles, and the total rental was then fixed at Rs. 1,51,862. This sum was however, subsequently reduced by Rs. 17,800 owing to certain errors in assessment.

This settlement having expired in 1890, a fresh settlement was concluded between 1888 and 1895 under the provisions of the Bhutan Duars Act, XVI of 1869. Tea lands and forests lands were not dealt with at this settlement. In the remaining areas, 9,971 *jotes* were found and they were assessed at Rs. 3,74,901.

The current settlement was carried out as part of the district operations between the years 1906 and 1916. The area in which Government has retained full proprietory rights is 1,903 square miles, of which 505 consists of reserved forest, 383 square miles of tea gardens and 851 square miles of land settled as *jotes*. The remainder is reserved for public purposes or available for settlement. The area actually cultivated, apart from tea, is 488 square miles. The *jotedars* had 266,755 acres in their possession of which about half were sublet to *chukanidars* on cash rents. Produce paying tenants under *jotedars* held 108,924 acres.

The Tenancy Act does not fully apply to the Duars and the *jotedars* are bound by the terms of their leases. For the purposes of assessment the lands were classified according to their fertility, and three tables of rates were prepared. In two out of three groups of parganas, the *jotedars* were assessed at these rates and the rents of their under-tenants fixed at 50 per cent. in excess. In the third group the rents of the under-tenants were taken as the basis of the assessment and the *jotedar* received 33⅓ per cent. of the collections as profit. The result is a revenue of Rs. 6,10,495 when all progressive enhancements have come into force. This represents an increase of 63 per cent. on Mr. Sunder's assessment of 1895 but in the meantime many new *jotes* have been settled.

Darjeeling.

210. The district of Darjeeling is excluded from the operations of the Bengal Tenancy Act. Act VIII of 1879 is in force in the district and the rent law is contained in Act X of 1859. With the exception of a few areas settled permanently with the Maharajadhiraja of Burdwan, in the Sadar and Kurseong subdivisions, the whole area not under tea or forest is administered as a Government estate.

Siliguri Terai Government Estate.

211. The whole of the Siliguri subdivision, at the foot of the hills, is known as the Terai Government Estate. It was acquired by conquest from Sikkim in 1850. The cultivated portion was first settled for 10 years in 1853, mainly with the existing cultivators whose tenancies are known as *jotes*. On the expiry of this period the settlement was renewed from year to year till 1867 when a fresh settlement was made for 10 years. A third settlement for the same period was made in 1879. This was extended up to 1895, after which a fresh survey and settlement under Act VIII of 1879 was concluded in 1898 for a period of 20 years. The *jotes* then numbered 834, varying in size from 1,192 acres to 2¼ acres. The total area was 124,376 acres. In addition, there were 80 blocks of land subsequently settled with tea planters which are known as the 30-year *jotes* and cover 32,900 acres. The total cultivated area was about 68,657 acres. Excluding the area under tea and thatching grass, the cropped area came to 54,241 acres, of which 46,160 acres grow rice which is

the most important crop. The land was graded as first, second or third class—*rupit*, or low land first, second *faringhati* or high land, or as tea; and third, *sal*, homestead, or new or old fallow. The rates fixed were about 25 per cent. higher than those of the previous settlement. The total revenue increased by 21½ per cent. and came to Rs. 1,13,222. A new survey and settlement of the whole subdivision which is still in progress was begun in 1920. The chief problem for decision is the status of the *jotedars*. At various times many conflicting opinions have been expressed on the question, some authorities maintaining that they are proprietors, others tenure-holders, and others raiyats. Many of the *jotedars* are non-cultivators and all their lands are sublet to *thikkadars* who pay cash or a fixed quantity of produce, or to *adhiars* who pay a share of the produce. Under Act VIII of 1879 these *jotedars* are described as "under-tenants," more or less corresponding to tenure-holders, according to the Bengal Tenancy Act though some are certainly raiyats. At the last settlement no entries were made as regards their status, they were styled *jotedars* merely, but they were assessed not on the basis of their assets as under-tenants but as raiyats.

There is nothing in Act IX of 1859 which *primâ facie* forbids the existence of various grades of under-raiyats in the same land, but on the analogy of the Tenancy Act the Courts have been inclined to hold that the *thikkadars* cannot acquire occupancy rights. Hitherto there has been plenty of land available for settlement and the *thikkadars* have been ready to shift from *jote* to *jote* and have not claimed any permanent right. The time has, however, come when the cultivators must be given some legal protection from eviction and rack renting, either under the present law, by establishing the status of the majority of the *jotedars* as tenure-holders, or by giving to the *chuknidars* occupancy rights as under-raiyats.

Kalimpong Government Estate.

212. The Kalimpong subdivision was annexed under the Senchuta Treaty concluded with Bhutan in 1865. The major portion of the total area of 401 square miles is covered by reserved forests. The Government Estate, with minor estates included in it, occupies an area of 173 square miles of which 96 square miles are occupied. Settlements of a portion of this estate were made in 1882 and 1892. In 1903 a regular survey and settlement of the whole estate was completed by Mr. (now Sir Charles) Bell, I.C.S. The area was divided into 49 blocks, each under a *mandal* or headman, remunerated by a commission of 10 per cent. on the collections in addition to a rent-free holding. For the purposes of assessment the blocks were arranged in five groups and the land classified as cardamom, *panikhet* (low land), *sukhakhet* (up land), and waste, with rates varying in each group except in the case of cardamom. The rent assessed, exclusive of bazar rent, was Rs. 32,727. The survey and settlement has recently been revised. The former grouping and classification have been followed and the rental of land held by raiyats raised to Rs. 58,269, an increase of 35 per cent. on the rent payable for the present area at the old rates. The form of lease has also been revised with a view to preserving the special character of the tenancies held by hillmen with such modifications as were necessary owing to changed conditions.

West Teesta.

213. This is the name given to 23 scattered blocks of more or less culturable hill side, sandwiched between tea gardens or reserved forests in the Sadar subdivision of Darjeeling. The area at the settlement of 1906—08, excluding forests, came to 15,138 acres of which 10,542 acres were cultivated, and at the recent settlement of 1919-20 to 14,185 acres, the decrease being due to the extension of reserved forest. For purposes of assessment the blocks are divided into three groups. The land is classified as cardamom (*panikhet*), *sukhakhet*, and waste, and assessed at rates varying in each group except in the case of cardamom. The rental was increased at the recent settlement from Rs. 13,771 to Rs. 15,717. Each block is under a *mandal* who is remunerated by a commission of 10 per cent. on collections.

Other settlements.

214. In all the districts in which major operations have been taken up under Chapter X of Act VIII of 1885, resettlement of land revenue has been carried out in all the Government and temporarily-settled estates in which the previous settlement had expired. Similar work is now going on in Nadia and Jessore and Pabna, and in Faridpur and Bakarganj, the Collector has revised

the settlement of estates omitted at the district settlement on the same lines. The rents of the raiyats are increased on the basis of increased area and the rise of prices of the staple food crops, and, whenever possible, uniform rates are assessed in preference to the manifold rates previously in vogue. Progressive enhancements are granted on a liberal scale and the tenants seldom object to the rates proposed by the Settlement Officer. The following table shows the increase of revenue which has resulted from proceedings of this kind in the last nine years:—

	Old revenue.	New revenue.	Increase.
	Rs.	Rs.	Rs.
1913	2,62,023	3,51,923	89,900
1914	3,18,735	5,06,044	1,87,308
1915	1,28,970	2,18,683	89,713
1916	2,16,892	2,98,249	81,357
1917	35,571	54,702	19,131
1918	79,330	1,33,986	54,656
1919	1,16,104	1,51,145	35,041
1920	42,388	71,344	28,956
1921	70,272	1,39,534	69,262

Surveys and settlements of private and permanently-settled areas.

215. Although in the rest of India, settlement operations are connected with the revision of land revenue, in Bengal comprehensive operations have been completed and are being undertaken without any prospect of fiscal advantage. Chapter X of the Bengal Tenancy Act made it possible for the Supreme Government to order a survey and the preparation of a record-of-rights in any area; and for the Local Government to order these operations in any estate or local area in which the landlords or tenants applied, or where it was calculated to settle or avoid a dispute between landlords and tenants. As a result of this enactment of survey and a record-of-rights have been prepared for a large number of private estates in every district at the expense of landlords and tenants. In the meantime the great success of the settlement operations in North Bihar in securing the rights and protecting the interests of the tenantry, and the ease and cheapness with which the operations were carried out, determined Government to afford the same security and protection to the cultivating classes in Bengal, and at the same time to disperse the great confusion which—as has been explained—surrounds the tenure of land in Bengal.

The extent to which these operations have been carried out or are in progress has been described in paragraph 202. In the course of the operations a map and a record-of-rights in land are prepared for every village in the district. The map shows every field and is on the scale of 16-inches to one mile; the record enumerates the occupants of every field mapped, the landlords and intermediate landlords under whom they hold, the rent payable in respect of each tenancy, together with all rights and incidents attaching to the tenancy. The maps are then vandyked and issued to all persons interested in the land together with a printed copy of the record-of-rights so far as it relates to the land in their own possession or sublet to their immediate tenants. The cost of these operations, which averages about Rs. 840 per square mile, is borne one-fourth by Government and three-fourths by the landlords and tenants of the district. The final reports of Chittagong, Bakarganj, Faridpur, Jalpaiguri, Dacca, Mymensingh, Noakhali, Tippera, and Midnapore have been published, and the final report of Rajshahi is in the press.

Surveys and settlements of new alluvial lands.

216. The surveys of Ganges alluvion and diluvion, in accordance with the provisions of Act IX of 1847, were commenced in the Patna division about 1863, and brought to a close in the Rajshahi division in 1871-72. The operations were afterwards continued in the Dacca division. The object of the law was to obviate the effects of the changes constantly going on in the banks of rivers and adjacent lands. By these changes large portions of land are often washed away—sometimes suddenly, sometimes by slow degrees—from one side of a river, while an accession of land takes place on the other side. It was thought advisable, for the security of the

land revenue, that some provision should be made for allowing to a proprietor, whose estate had suffered diluvion, an abatement of revenue corresponding to the extent of his loss, and on the other hand for assessing the proprietor, whose estate has gained land, with an additional revenue proportionate to the amount of his gain. The law accordingly enacts that in districts of which a revenue survey has already been made Government may, whenever 10 years may have elapsed from the date of approval of such survey, have a new survey made of lands on the banks of the rivers with a view to ascertain the extent of the changes since the last survey. Having ascertained, by inspection of the survey map, which estates have lost and which gained land, corresponding abatements from, and additions to, the revenue assessed on the estates respectively losing and gaining are to be made. This is not, however, a complete statement of the law, as no addition to the revenue can be made in respect of any area which can be proved to be a re-formation *in situ* of land previously settled in perpetuity. This qualification was laid down by the Privy Council in the famous Lopez case. As a result of that decision proprietors rarely consent to the abatement of their revenue as they thereby lose their title to the diluviated lands on reformation.

The settlements made were formerly permanent, except when the proprietors refused to take the engagement, in which case the lands were let in farm for periods of from three to ten years; for many years, however, it has been the rule to make temporary settlements of these newly created estates.

In the course of the six years, 1877-78 to 1882-83, the banks of the chief rivers of Eastern Bengal, namely, the Ganges and Meghna, with their principal branches down to the Bay of Bengal, the Dhaleswari, the Brahmaputra and the southern portion of the Jamuna, were surveyed. The total area of the tracts of the country thus surveyed in Dacca, Faridpur, Bakarganj, Tippera, Noakhali, and Mymensingh was 5,682·74 square miles at a total expenditure of Rs. 1,59,430. The cost per square mile of country surveyed was therefore Rs. 28-6-10. This survey was made in the same scientific manner as the survey conducted by the Revenue Survey Department, and the accuracy of the work was tested by connections made with 18 tower stations of the Great Trignometrical Survey.

The total area of the land added to the estates since the survey of the districts, ascertained by a comparison of the new maps with those of the previous survey, was nearly 479 square miles. Out of this area, 597 estates, measuring 237 square miles, were assessed and settled under the provisions of section 6, Act IX of 1847, yielding an annual revenue of Rs. 1,18,905, including malikana. In 113 cases, 57 square miles, with a rental of Rs. 45,084, were left unassessed under orders passed in appeal by the Commissioner or the Board; 184 square miles were left unassessed as being—(1) less than 10 acres; (2) accretions to temporarily-settled estates which were not liable to assessment until the settlements of the estates expired; (3) washed away between survey and settlement; and (4) included in estates sold or permanently settled by Government on a revised assessment since the first survey of the districts, and therefore not liable to reassessment.

Resumption operations.

217. In the recent settlements of Bakarganj, Faridpur, Dacca, Mymensingh, and Rajshahi, resumption operations have been conducted *pari passu* with the preparation of the new maps and records. Not only have the areas which have dried up since the Special Diara Survey of Babu Parbati Charan Roy in the large rivers of the province, referred to in the last paragraph, been resumed, but attention has also been paid to all the smaller rivers which have silted up since the Revenue Survey. The zamindars raised objections on the ground that the rivers were not navigable, or that the river beds were included in their zamindaris which were settled, not village by village, but as a whole. The recent judgment of the Privy Council in the Damodar case has made the case of Government very strong in all these proceedings, but in the Jamuna river the proceedings have been cancelled on the ground that it is extremely improbable that there

was a wide river in the site of the Revenue Survey river at the time of the Permanent Settlement. Lands in many other places have been released on the ground that they were the subject-matter of previous unsuccessful resumption proceedings, or that lands not less in area were resumed in their place in adjoining sites at some previous date.

The magnitude of the resumption work done by the different settlements from Bakarganj onwards will appear from the statement below. Up to September 1921 proceedings had been drawn up for 1,672 new estates, of which 1,452 with a revenue of Rs. 2,05,790 have been sanctioned by the Board:—

District.	Proceedings instituted.			Proceedings confirmed by the Board.		
	Number of proceedings of cases (one river in one thana).	New estates.	Amount of revenue.	Proceedings.	Estates.	Revenue.
1	2	3	4	5	6	7
			Rs.			Rs.
Bakarganj	91	333	56,429	91	333	56,429
Faridpur	29	153	32,376	29	153	32,376
Dacca	24	179	25,692	24	179	25,692
Tippera	8	57	2,796	8	57	2,796
Mymensingh	45	651	58,591			
Rangpur	3	3	4,215	30	515	36,641
Bogra	1	13	3,842			
Noakhali	11	12	16,558	10	11	10,254
Midnapore	28	21	9,528	27	20	9,295
Rajshahi including Nadia, Pabna, Murshidabad, and Malda done from Rajshahi.	34	201	68,033	31	156	30,244
Jessore	8	49	4,968	3	28	2,243
Total ...	282	1,672	2,82,018	253	1,452	2,05,790

Waste lands.

218. Among the various kinds of estates not permanently settled, referred to in paragraph 204, the subsequent paragraphs have described the system of settlement of those estates in the plains of Bengal which differ from the surrounding permanently-settled estates, chiefly by the accident that Government has power to increase the revenue. These have all been held by hereditary cultivators with permanent rights from time immemorial and except in a few scattered areas Government has held no land at its own disposal. There are, however, two important exceptions—(1) the lands which have never been ploughed for the cultivation of the crops ordinarily grown by the Bengali cultivator in Darjeeling, Jalpaiguri, and Chittagong; and (2) the forests and islands in the Sundarbans of the 24-Parganas, Khulna, and Bakarganj, of which those portions in existence at the time of the Permanent Settlement were entirely uninhabited, and which have gradually been made available for cultivation by the silting up of the rivers and by reclamation by human agency.

Prior to 1861 there was no definite policy as regards either of these classes of lands. In 1861, Lord Canning, in order to develop the resources of the province, introduced a new policy of disposing of all unoccupied lands in fee-simple or, in other words, of selling them revenue-free.

Lord Canning's Minute of the 17th October 1861 laid down three main principles on which grants of waste lands were to be made in future. These were—*firstly*, that " in any case of application for such lands they

shall be granted in perpetuity as a heritable and transferable property subject to no enhancement of land revenue assessment"; *secondly*, that "all prospective land revenue will be redeemable at the grantee's option by a payment in full when the grant is made, or, at the grantee's option, a sum may be paid as earnest at the rate of 10 per cent., leaving the unpaid portion of the price of the grant, which will then be under hypothecation, until the price is paid in full"; and *thirdly*, that "there shall be no condition obliging the grantee to cultivate or clear any specific portion after grant within any specific time." The minimum price for the fee-simple was fixed at Rs. 2-8 per acre, so that by paying 10 per cent. of this, or four annas per acre, a title was obtained. Moreover, many large tracts were for a merely nominal payment obtained by speculation in anticipation of measurement. A despatch from the Secretary of State subsequently required in addition to these provisions that grants should be surveyed before sale, and that all sales should be by auction to the highest bidders above a fixed upset price.

These rules were in force until 1872 when, owing to the serious abuses, which, from defects in the rules, and laxity in their administration, had been allowed to occur, the Lieutenant-Governor of Bengal stopped further grants under them pending their revision. In 1874 revised rules for the sale of waste lands, superseding all previous rules, were issued; but the formation of the Chief Commissionership of Assam in that year withdrew from their operation the districts in which transactions had been most frequent, and the rules failed to attract applicants in the territories left in Bengal and remained inoperative. In May 1879 they were finally withdrawn, and only temporary settlements were allowed. Special rules and leases were from time to time prescribed by the Board of Revenue or Government for each district and these rules have recently been brought together in the revised edition of the Waste Lands Manual. A brief outline of the policy adopted in each of the main tracts is given below.

Sundarbans.

219. The Sundarbans is a vast tract of forest and swamp forming the lower part of the delta of the Ganges and extending for about 170 miles along the sea face of the Bay of Bengal from the estuary of the Hooghly on the west to that of the Meghna on the east, and running inland to a distance of from 60 to 80 miles.

The first comprehensive set of rules for leases in the Sundarbans was that of 1853. These rules provided that application should be made to the Commissioner of the Sundarbans and that if, after due advertisement, more applicants than one presented themselves for a particular grant the right of settlement should be sold to the highest bidder. The main conditions of the grant were that one-fourth of the area should be permanently exempted from assessment (so as to allow for sites of houses, water channels, embankments, etc.) and that the remaining three-fourths should remain free of assessment for 20 years, and thereafter should be held at half-an-anna a bigha from the 21st to the 30th year, one anna a bigha from the 31st to the 40th year, one and-a-half annas a bigha from the 41st to the 50th year, and two annas a bigha from the 51st to the 99th year. After the 99th year, the grant was to be liable to survey and reassessment at such rate as Government might think fit, the grantee, his heirs and assigns having such rights, as to taking settlement, as are generally applicable to the owners of temporarily-settled estates. The rules provided that one-eighth of the grant should be cleared and rendered fit for cultivation by the end of the 5th year, one-fourth by the end of the 10th year, one-half by the end of the 20th year, and three-fourths by the end of the 30th year. Failure to carry out this clearance entailed forfeiture of the grant. Government reserved the right of making a survey between the 20th and 30th years to ascertain the actual area contained in the grant. Grantees of grants made under other previous rules were permitted to commute their grants into grants on the above conditions and a number of them took advantage of this option. The rules of 1853 were superseded by the several sets of fee-simple rules issued in 1861 and subsequent years, but when, in 1879, these rules were finally withdrawn, a revised set of lease rules for large and small capitalists was published in the same year.

These differed from the rules of 1853 in providing a rent-free period of only ten years, and in laying down only one clearance condition, *viz.*, that one-eighth of the entire grant should be rendered fit for cultivation at the end of the 5th year. This condition might be enforced either by forfeiture of the grant, or by the issue of a fresh lease, ommitting the remainder of the rent-free period, and requiring payment of rent at enhanced rates during the term of the grant. The rules also provided for gradually increasing rates of assessment after the expiration of the rent-free period, and for varying rates within different tracts according to the rent-paying capabilities of the land. It was further provided that there should be constantly recurring renewals of the lease on resettlement. The term of the original lease was fixed at 40 years, and resettlements were to be made after periods of 30 years, maximum rates being laid down for each resettlement.

The limits, within which lands might be leased, were fixed in consultation with the Forest Department. An accurate definition of boundaries was provided for. The maximum area of grants was restricted to 50,000 bighas, the minimum being 200. Cultivation must not be scattered all over the area of land, but was to proceed regularly through the blocks. Leases were to be sold at an upset price of Re. 1 an acre when there was only one applicant, and to the highest bidder when there were more than one. The leases conferred an occupancy right, hereditary and transferable. Survey fees were payable by the applicant at the rate of 4 annas an acre, as also a deposit of Rs. 16 for notices to objectors. Refunds and adjustments of fees deposited were permitted. Rights of way and water and other easements were reserved. The right of using all streams in any way navigable, and the use of a tow-path not less than 25 feet wide on each side of every such stream, were also reserved to the public; while Government reserved to itself the right to all minerals in the land, together with rights of way and other reasonable facilities for working, getting at, and carrying away such minerals. No charge was made for timber on the land at the time it was leased, nor for any cut or burnt to effect clearances or used on the land; but a duty was levied on any exported for sale.

Amalnamas for plots of lands below 200 bighas used to be given to small settlers guaranteeing them a formal lease for 30 years if the land were brought under cultivation within two years. The 30 years' lease allowed a rent-free term of two years with progressive rates of rent on the cultivated area, fixed with reference to rates paid, in the neighbourhood by raiyats to landholders for similar lands. If available, an area of unreclaimed land equal to the cultivated area was included in the lease, and in addition, the lessee could bring under cultivation any quantity of land adjoining his holding which he might find *bonâ fide* unoccupied. The holding was liable to measurement every five years, and all cultivated land in excess of the area originally assessed could be assessed at the same rate. After 30 years renewed leases could be given for 30-year periods, and rates of assessment could be adjusted at each renewal with reference to rates then prevailing in the neighbourhood. The tenure was heritable and transferable, provided that notice of transfer was given to the Sundarbans Commissioner within one month, and no holding was to be divided without his permission. No charge was made for wood and timber on the grant, nor for any cut or burnt in making clearances, or used on the land; but a duty was levied on any exported for sale.

These rules did not work well. Experience showed that the system led to the growth of an undesirable class of land-speculators and middlemen, and to the grinding down of the actual cultivators by excessive rents. Land-jobbers and speculators obtained leases for the purpose of reselling them. In order to recoup his initial outlay, the original lessee often sublet to smaller lessees in return for cash payments, and the same process was carried on lower down the chain with the result that the land was eventually reclaimed and cultivated by peasant cultivators paying rack rents. It was accordingly decided in 1904 to abandon this system and to introduce a system of raiyatwari settlement, as an experimental measure, in the portions of the Sundarbans lying in the districts of Bakarganj

and the 24-Parganas. Under this system small areas (maximum 75 bighas and minimum 10 bighas) were let out to actual cultivators, assistance being given them by Government in the form of advances as well as by constructing tanks and embankments, and where necessary, clearing the jungle for them. In Bakarganj, this system proved successful and large areas are being annually settled and reclaimed at a cost that promises to be ultimately remunerative to Government. The cultivators as a rule clear the jungle themselves and the assistance given by Government is in the form of construction and maintenance of tanks, embankments, and drainage channels. In the 24-Parganas, on the other hand, where the areas available for settlement presented greater difficulties in the way of reclamation, the experiment proved a failure. Direct reclamation and raiyatwari settlement were tried on a large scale in Fraserganj, an island on the sea face; but the reclamation proved unexpectedly costly, and cultivators could not be attracted to settle on the island on remunerative terms. In other resumed estates the results of direct reclamation and settlement were equally discouraging, and for a few years from 1910 onwards the system of settlement with large capitalists was reverted to. The rules now in force again lay down that settlement must be made with the cultivating raiyats, and special Colonization Officers are employed to make the settlements and to enforce the restrictions against unauthorised transfers and subletting. The rules for Bakarganj and the 24-Parganas are somewhat dissimilar, but Saugor Island for which special rules were framed in 1897 now comes under the 24-Parganas rules. For detailed information on this subject Mr. Ascoli's "Revenue History of the Sundarbans" may be consulted.

Darjeeling and Jalpaiguri.

220. Most of the hilly areas in Darjeeling and a considerable area in the plains of Jalpaiguri and Siliguri have been converted into tea gardens, but a certain area still remains which is available for ordinary cultivation. The rules provide for two classes of leases—

(1) those for larger capitalists wishing to grow special crops such as tea; and

(2) those for small capitalists for ordinary cultivation.

The main features of the rules for larger capitalists are the following:— Declared forest reserves and land having valuable timber in compact blocks, lands in which other rights exist, lands lying within 60 feet from the centre of any public road, lands lying within a distance of 100 feet of any considerable stream or water-course, and lands expressly exempted by Government, are not to be granted. Each lot must be compact, and not contain ordinarily more than 1,500 acres. On special grounds, however, the Commissioner may sanction grants up to 1,800 acres, the Board of Revenue up to 3,000, while grants in excess of the latter limit require the sanction of Government. In all cases the applicant must give evidence or guarantees that he has *bonâ fide* at his command sufficient capital to enable him to open out the grant. The holder of a grant can apply for a second grant if he can satisfy the Deputy Commissioner and superior revenue authorities that he has *bonâ fide* at his command sufficient capital to warrant the concession, and if he has fulfilled all the conditions attaching to his existing grant. Tea leaseholders may obtain arable grants contiguous to their tea lots. Inquiry and survey at the expenses of the applicant must ordinarily precede the grant of a lease. A preliminary five-years' lease is granted rent-free for the year of entry and the first quarter after it and at progressive rents for the rest of the term. The rights conveyed are heritable and transferable, provided that the whole lot is transferred, that clearance conditions are duly observed that a transfer fee has been paid, that the transferee has *bonâ fide* at his command sufficient capital to enable him to cultivate the grant, and that the transfer is registered in the Deputy Commissioner's office within one month of the registration of the deed of transfer. The right of Government to minerals and quarries, and to payment for valuable trees on the grant, and the right of the public fisheries, and a right of way along the banks of navigable streams are reserved, while provision is made for public access to springs of water on the lands leased, when necessary to insure a supply to persons residing

in the vicinity, for the construction and maintenance of proper boundary marks, for the presence of the lessee himself or of a resident manager on the grant, for reports of births and deaths of residents on the area granted, for information as to the progress and outturn of cultivation, for the acquisition by Government of any land required for public purposes free of cost, except by proportionate reduction in the rent and by the payment of the value of any improvements in the land taken up, and for dealing with excess lands found in the possession of the lessee. In the event of the provisions of the Chaukidari Act being enforced in any tea-garden, the lessee is bound to furnish accommodation for the residence of the chaukidar and to see that he receives his pay punctually. Grantees can club or amalgamate their grants by transfers, duly registered, on payment of the prescribed fee. Government reserves the right to exclude any particular area from the operation of the rules and to sell grants in that area by auction. If, after inspection during the term of the preliminary lease, 15 per cent. of the total area shall have been brought under cultivation and actually bears tea plants, the lessee is entitled to a renewal for a term of 30 years, and to similar renewals in perpetuity, provided that Government may fix the rent on certain specified conditions on each renewal; that the renewed lease be heritable and transferable in whole or in part with due sanction and after proper registry; and that all the other conditions of the preliminary lease hold good. Failure to comply with any of the conditions renders the lessee liable to forfeiture of his lease; and failure to comply with the clearance conditions of his preliminary lease reduces him, if he is allowed to continue, to the status of a tenant-at-will, the term of grace being limited to three years, within which, if he clears 15 per cent. of the total area, he may obtain a renewed lease.

The second class of rules for small capitalists, as applicable to the Duars, were published on the 16th May 1888, and were again revised in 1917. Applications for more than 25 acres or less than 10 acres would not be entertained. After five years, if the conditions as regards reclamation had been complied with, the lease would be renewed and the title become heritable and transferable. The rent was to be fixed by the Deputy Commissioner on the basis of the neighbouring rates for similar classes of lands. Special rules were framed for the conversion of *jotes* or ordinary arable lands into tea lands and the special sanction of Government was made necessary.

221. In the Chittagong Hill Tracts there are a few tea gardens but the greater part of the land which has been cleared of jungle grows rice, sugar-cane or maize. In 1900 the Chittagong Hill Tracts Regulation was passed. The rules then published have again been amended in accordance with the recommendations of Mr. F. D. Ascoli, I.C.S., who was deputed in 1918 to report on the revenue administration of this area. While the collection of the revenue remains with the village headmen under the three hereditary Chiefs of Chakma, Bohmong and Mong, the Superintendent, who is now styled the Deputy Commissioner, retains control of all settlements, and alienation or subletting to foreigners from the plains is strictly forbidden. **Chittagong Hill Tracts.**

222. Under Act IX (B.C.) of 1870 and its amending Acts the Court of Wards may take charge of the persons and properties of the following classes of persons:— **Court of Wards.**

(*a*) Females declared by the Court of Wards to be incompetent to manage their own property.

(*b*) Persons declared by the Court of Wards to be minors.

(*c*) Persons adjudged by a competent Civil Court to be of unsound mind and incapable of managing their own affairs.

(*d*) Persons adjudged by a competent Civil Court to be otherwise rendered incapable by physical defects or infirmities of managing their own property.

The Court of Wards may also take charge of the properties, but not the persons of those who, on their own applications, have been declared by it to be disqualified for the purpose of managing their own estates, when it is expedient in the public interest that their estates should be managed by the Court. It may also, with its own consent, be placed in charge of estates attached by a Civil Court.

The Board of Revenue, Bengal, is the Court of Wards for the Presidency. The Court has in recent years largely delegated its powers, especially in regard to estates the income of which does not exceed one lakh of rupees, to Divisional Commissioners and District Collectors. Under the Collectors the actual management of properties under the Court is entrusted to managers. Large and important estates have, as a rule, a separate manager; but sometimes one general manager is appointed for all the estates in a particular district.

The Court of Wards was originally established for the security of the Government revenue; but Government interference on this score is no longer necessary, and the principal business of the Revenue Officers who now take charge of wards' estates is, by acting the part of good and prudent landlords, to serve as models to other proprietors and protectors to their own tenants, to extricate the estates from any difficulties into which they may have fallen, and to employ any surplus income in improving the estates and the condition of the tenantry. The Court accordingly encourages expenditure on the provision of medical relief and primary education for the tenants, on irrigation works, agricultural experiments, village sanitation, markets and advances to cultivators. When an estate is sufficiently solvent, one of the first aims of the Court is to have a survey and record-of-rights of the estate prepared under Chapter X of the Bengal Tenancy Act (Act VIII of 1885).

In addition to looking after the property of its wards, the Court exercises a close supervision over their education and general welfare. Minor wards of moderate means usually attend the primary and secondary schools in the neighbourhood of their homes; and if they show any promise, are entered at some college and encouraged to pursue their education as far as their capabilities and the funds of the estate will permit. Private tuition is, as a rule, supplied in addition to the schools or college training. Special arrangements are made for the education of the richer and more important wards, and an endeavour is made to fit them for the position they will ultimately hold in society. During the last year or two of their minority special attention is given to the training of male wards in the future management of their estates. From 1904 to 1921 an educated Indian lady, Miss Cornelia Sorabji, was employed by the Board to look after the legal and educational interests of *purdanashin* wards and to act as an intermediary between them and the local officers. On her retirement from the middle of November 1922, the post was abolished under the orders of Government.

There are at present 66 estates in charge of the Court, of which the most important are—

	Annual rent-roll.
	Rs.
The Dacca Nawab Family estates	8,47,372
The Bhawal Estate, Dacca	6,54,580
The estate of Kumar Kamala Ranjan Roy of Kasimbazar, Murshidabad	4,70,998
The Santosh six annas estate, Mymensingh	3,05,362

Rates. To meet the cost of general supervision and management of the estates under the Court, other than that of establishments specially entertained for the supervision or management of any particular estate or group of estates, a general rate is levied from all estates under Act X of 1892. The rate is at present 2½ per cent. for all, except one or two of the larger estates, for which a lower rate has been fixed. A special audit rate is levied under the same Act on estates with a rent and cess demand of Rs. 50,000 and upwards to meet the cost of a special establishment for auditing the accounts. The present rate is 10 annas per cent. and for the two larger estates of Dacca special lower rates have been fixed. Certain fees have also been prescribed under the said Act for all legal business done for any estate by the Legal Remembrancer.

CIVIL DIVISIONS OF BRITISH TERRITORY.

Divisions, Districts and Sub-divisions. 223. The province is divided into five administrative divisions, each under a Commissioner. These divisions are made up of 27 districts (excluding Calcutta) each under a Collector or Deputy Commissioner. The districts are

again subdivided into 87 subdivisions. The districts of Jalpaiguri, Darjeeling, and Chittagong Hill Tracts are known as non-regulation districts. The last two are excluded from the full operation of the India Act of 1919 and the expenditure incurred in them is independent of the vote of the Legislative Council.

The table below shows the divisions, districts, and outlying subdivisions of the province:—

Division.	District.	Subdivision.
Burdwan.	Burdwan ...	Asansol.
		Katwa.
		Kalna.
	Birbhum ...	Rampur Hât.
	Bankura ...	Vishnupur.
	Midnapore ...	Ghatal.
		Tamluk.
		Contai.
		Jhargram.
	Hooghly ...	Serampur.
		Arambagh.
	Howrah ...	Ulubaria.
Presidency.	24-Parganas ...	Diamond Harbour.
		Barrackpore.
		Barasat.
		Basirhat.
	Nadia ...	Kushtia.
		Meherpur.
		Chuadanga.
		Ranaghat.
	Murshidabad ...	Lalbagh.
		Jangipur.
		Kandi.
	Jessore ...	Jhenida.
		Magura.
		Narail.
		Bangaon.
	Khulna ...	Satkhira.
		Bagerhat.
Dacca.	Dacca ...	Narayanganj.
		Manikganj.
		Munshiganj
	Mymensingh ...	Jamalpur.
		Tangail.
		Netrakona.
		Kishorganj.
	Faridpur ...	Madaripur.
		Gopalganj.
		Goalundo.
	Bakergunge ...	Patuakhali.
		Pirojpur.
		Dakhin Shabazpur.
Chittagong.	Chittagong ...	Cox's Bazar.
	Noakhali ...	Feni.
	Tippera ...	Brahmanbaria.
		Chandpur.
	Chittagong Hill Tracts ...	Ramgarh.
		Banderban.
Rajshahi.	Rajshahi ...	Naugaon.
		Nator.
	Dinajpur ...	Balurghat.
		Thakurgaon.
	Jalpaiguri ...	Alipur.
	Rangpur ...	Nilphamari.
		Kurigaon.
		Gaibandha.
	Bogra ...	Nil.
	Pabna ...	Sirajganj.
	Malda ...	Nil.
	Darjeeling ...	Kurseong.
		Siliguri.
		Kalimpong.

224. During the Moghul period the subah or province was divided into sircars, and these again into mehals, and later into parganas for fiscal and **Parganas.**

administrative purposes. In many instances, however, the parganas soon ceased to be compact territorial units, and changes continued during the dismemberment of estates which followed the Permanent Settlement. In only a few districts, where zamindaris are old and undisturbed, have they retained their original character. Often detached villages, or groups of villages belonging to a pargana, may be found all over a district, or in more than one district, and in some places lands belonging to different parganas occur within the boundaries of a single village. Thus, the parganas ceased to provide a suitable basis for the criminal and civil administration, and although their existence is still recognized in many official records, mainly because they were adopted as the basis of the Revenue Survey, they were superseded as the units for revenue administration by the geographically compact police thanas. This arrangement had its origin in Regulation XXII of 1816 by which Magistrates were directed to divide their districts into police jurisdictions to be named after the places at which the chief police officers were stationed.

Thanas and outposts.

225. In this way the term "thana," which originally meant only the police-station, came to be applied to the jurisdiction subordinate to that station. In the course of time the great convenience of the compact police unit involved its employment for revenue and civil purposes also, so that for all purposes of administration a subdivision came to consist of a certain number of thanas, and a district of a certain number of subdivisions. The term "thana," however, no longer corresponds invariably to the unit of police administration. Most of the thanas, owing to their inconvenient size, have been subdivided and the new units are called police-stations as distinguished from the revenue thanas. The thana remains the unit of revenue administration until, in the course of district settlement operations, new jurisdiction lists are published in which the police-station is finally adopted as the unit for revenue purposes also.

The number of thanas is now 375 and the number of police-stations 654.

Tahsildari Divisions.

226. The tahsildari system, which obtains in other parts of India for the collection of revenue, and the tahsil division of territory are not known in this province, except in the district of Chittagong. For the collection of rent in the Government estates or groups of estates there are officers who are called tahsildars. These officers are divisible into two main classes; in the one, they are a subordinate staff; in the other, a superior staff, ordinarily drawn from the Subordinate Executive Service. The former system is employed ordinarily when the area of the estates under direct management is small; each tahsildar is in charge of the collection work of a circle, assisted occasionally by a mohurrir, and he is entirely subordinate to the Subdivisional Officer or to a special Khas Mahal Officer. Under the latter system, which prevails in the more important estates, each circle is in charge of an officer of gazetted rank who is either in direct charge of collections or immediately controls a subordinate staff for this purpose. In addition he is vested in certain cases with statutory powers.

Villages.

227. During the last decade the urban population has increased by about 8 per cent. This is higher than the rate of increase of population in the province as a whole, but much lower than the rate of increase in the previous decade, which was 13 per cent. This is partly due to the abnormal rise in the value of land in Calcutta and the suburbs, and possibly to a tendency which has set in, as the result of present economic conditions, for people on fixed money incomes to return to their native villages.

The term "village" is, however, of an elusive character, and incapable of exact definition. The revenue survey unit, the *mauza*, is in recently-surveyed areas a convenient basis of calculation. But in some districts the boundaries of each *mauza* are not accurately known, and in all it does not necessarily correspond to the residential village; it often contains several villages and hamlets. The residential village, moreover, is a very indefinite term. Widely scattered hamlets, or *tolas* as in some parts they are called, are not infrequently known, to the confusion of the wayfarer seeking his destination, by a single common name, whereas in the general acceptation of the term each would be regarded as a separate village. Thus, a "village"

may vary in size, from a collection of hamlets to the village with a population of 5,000 or more, hardly to be distinguished save in name from a small town with its own self-governing institutions.

Few traces of any indigenous system of village self-government are found in Bengal, but under recent legislation an attempt is being made to create such a system. For this purpose a unit intermediate between the police-station and the village, namely, the Chaukidari Union which was originally constituted under the Chaukidari Act merely for purposes of village police is being developed. It is intended ultimately to build up a system of rural self-government based on village union authorities vested with the powers and duties necessary for the management of communal village affairs, and entrusted with powers of self-taxation necessary for that purpose.

Details of the Last Census, 1921.

228. The Census procedure followed closely the lines adopted in 1911 and a brief summary of it is all that is necessary. The first step was the preparation of a register which was to account for all the inhabited area of the province. The population of Bengal does not live congregated in villages, as the word is understood in other parts of India. The homesteads of the cultivators are often scattered over the face of the country-side, or in rows along the banks of streams which have been raised by the deposit of their silt above the level of the rice fields. The place of the village as a unit in Bengal is taken by a survey unit, the "mauza." Instructions were issued in December 1911 to Collectors regarding the preparation of a Census Mauza Register on the basis of the most recent jurisdiction lists, to include every inhabited mauza in each district and thana, every *gaon*, *para*, *patti*, *ghat*, or *bazar* within the mauza, the number of houses and the names of persons suitable to be chosen as Census Enumerators and Supervisors. The register was to be prepared on the basis of the latest jurisdiction lists but might follow the Chaukidari Union Registers where these were up to date. The latter arrangement is most convenient, since the panchayats are an agency employed to assist in the earlier stages and often to supervise at the later stages of the procedure of enumeration, and Census divisions were formed on the basis of the division of thanas into Chaukidari Unions, but it was not always possible to adopt it. In many districts the Chaukidari Union Register was found to be in great confusion, and at least in one district, Dinajpur, no authenticated Union Register existed at all. The experience of the Census of 1911 led to the avoidance of the use of the word "village" in all instructions issued at this Census. Local subdivisions of the "mauza" were found to be few and, where they existed, to have such vague boundaries and to be of such odd shapes and sizes, that to have a record of them is really of no value to the officers whose duty it is to arrange the formation of Census divisions. The number of houses obtained through the agency of the thana police and the panchayats was moreover found to be hopelessly inaccurate, and almost always to have been an under-estimate. The time has passed when large new groups of homesteads are formed within 10 years on the plains of Bengal, except in new alluvial formations, and the experience of this Census points to the conclusion that the preparation of a Census Mauza Register by the thana police is now a waste of time. The Mauza Register may be a copy of the jurisdiction list or an up-to-date Chaukidari Union Register with the number of houses taken from the Mauza Tables of the previous Census, or from the Union Register if this has been written up carefully in the form prescribed by the Board of Revenue. Enumeration.

The Mauza Register having been completed, the district was parcelled out into Census divisions. The smallest division is the "block," including as many houses as an Enumerator is able to visit on the final Census night. Usually it was made to include 40 or 50. As, however, the population of each mauza was to be part of the final statistics, no block was allowed to cover or extend to more than one mauza. The blocks were grouped together

in circles, including 400 to 600 houses, and placed in charge of a Supervisor, who therefore had some 10 Enumerators whose work he was to supervise. The circles were gouped in charges generally corresponding to the jurisdiction of the police-station, though when this included more than some 12,000 houses, the thana was divided into one or more charges. The Charge Superintendents were under the control of the Subdivisional Officers, except in the Sadar subdivision where they were under the direct control of the District Census Officer. The latter was a Deputy Collector chosen by the Collector to be vested with the general supervision of the work throughout the district. Much depended upon his character and energy, and the extent to which he controlled the work of the outlying subdivisions varied in different districts. The smaller Census divisions have been spoken of as being grouped together to form the larger ones, but the process of formation more often went in the opposite direction, the larger divisions being divided up to make the smaller.

The selection of the agency to be employed in the enumeration started before the formation of Census divisions was complete. It was not commonly a matter of much difficulty in rural areas to find persons willing to act as Enumerators and Supervisors. There are plenty of people who have little to do, and who enjoy the responsibility of such work among people whom they have known all their lives, nor was there much more difficulty in towns, except in Calcutta, where conditions are very different. An effort was made to relieve the police by the employment of officers of other departments as Charge Superintendents, where it was possible, but this was not easy to contrive. In most parts the thanadar is still the only man available, but where a large thana was divided into more than one charge, such persons as Sub-Inspectors of Schools and of Excise were put in. An effort was made to make use of school boys as Enumerators, with their masters, who were in the best position to give them the necessary instructions, as Supervisors, and when this arrangmement was adopted, the Sub-Inspector of Schools was obviously the man for the post of Charge Superintendent, but even so, forms and printed instructions had to be distributed through the thanadar and village chaukidars.

The next step was to number the houses and make a list of them. This work was commenced by the Enumerators and Supervisors, except in Calcutta, where a paid agency was employed at the beginning of November and was finished by the end of the year. While it was going on, instructions in the methods of the actual enumeration, *i.e.*, how the columns of the schedule were to be filled up, what mistakes were likely to occur, etc., were methodically disseminated. For this purpose oral instructions were supplemented by test enumerations for which blank schedule forms were provided.

The preliminary enumeration commenced at the beginning of February in rural areas and in the middle of the month in towns, and took about three weeks. During this time schedules were written up for all persons ordinarily resident in each house. These were examined and checked and every effort made to ensure that the information entered was exactly the information required and that there were no omissions. Government offices were closed for two days so that, with a Sunday and a holiday towards the end of February, 4 consecutive days were available during which Collectorate clerks and others might be sent out to assist in this checking.

The Census.

229. The actual Census took place on the night of March 18th, a Friday, when the Enumerators went round the blocks with the schedules of the preliminary enumeration, struck out the names of those who had died or gone away and added particulars of new-comers and new-born infants. Special arrangements were made for dealing with travellers by rail, steamer and boat, and in the few cases in which it was necessary for travellers by road. The preparation of provisional figures began after midnight and in the morning of the 19th. The staff which had carried out the enumeration compiled figures for the numbers of males and females enumerated by themselves or their subordinates, and Charge Superintendents sent their figures in to District Headquarters either direct or through the office of the Subdivisional Officer. Offices were closed from midday on the 18th till the

Tuesday following, and in these days or within the next two, provisional totals were reached in most districts and telegraphed to Calcutta and Simla. The original schedules were collected and brought together at the same time preparatory to the subsequent stages of the work.

Tabulation and Compilation.

230. The final results were obtained from them by a process consisting of three stages, slip copying, sorting and compilation. A separate slip was filled up giving the particulars of each individual that had been entered in the schedules. Slips of several colours to denote the several religions were used with additional symbols to indicate sex and civil conditions so that the number of entries required in the slips was considerably reduced. Slip copying was in most cases done in District Headquarters stations, but slips for Bogra were copied at Rajshahi, slips for Calcutta at Barisal, slips for part of the 24-Parganas at Khulna, slips for Tripura State and for Noakhali Sadar subdivision at Comilla, for Feni subdivision and the Chittagong Hill Tracts at Chittagong, and for Siliguri subdivision at Rangpur. For the rest of Darjeeling district and for Sikkim the entries, originally in Nepalese Paharia or Tibetan, were done in English. Entries on other slips were in Bengali. Slip copying was ordinarily paid for at 9 pice per 100 slips in place of 6 pice in 1911. It was satisfactorily carried out in almost every instance and was finished generally within about seven weeks of the final enumeration.

The slips were sorted according to sex and religion in the slip copying offices and sent to five central offices at *Burdwan* for Burdwan Division and Murshidabad, at *Rajshahi* for Rajshahi Division, except the Darjeeling Hills and Cooch Behar, at *Dacca* for Dacca and Mymensingh, at *Barisal* for Calcutta, 24-Parganas, Khulna, Bakarganj, the Darjeeling Hills (without Siliguri subdivision) and Sikkim, and at *Comilla* for Nadia, Jessore, Faridpur, Tippera, Noakhali, Chittagong, the Chittagong Hill Tracts and Tripura State. Some slip copying had been done in these offices and the work of sorting and all the work of compilation was carried out in them. The slips were made up into boxes of suitable size, some 30,000 slips in two boxes given to each Sorter, who sorted them in pigeon-holes labelled according to the requirement of each table in succession and entered the results on Sorter's tickets. These tickets were checked and passed to compilers who entered figures from them in a separate register for each table and for each district. No considerable office space being available in Calcutta these Compilation Registers were sent to Dacca, where an office was opened under the control of the Census Superintendent's Personal Assistant in part of what had been the Dacca Settlement office. There the Compilation Registers were thoroughly checked and the final Census tables prepared.

The resultant figures.

231. The area of Bengal is estimated to be 42,277 square miles and the population was found to be 47,592,462. The principal statistics for the four natural divisions with broad physical and ethnological affinities are as follows:—

Locality.	Area in square miles.	Population.	Density per square mile.	Percentage.	Variation: increase (+) or decrease (-)				Net variation per cent. 1872-1921.
				1911-1921.	1901-1911.	1891-1901.	1881-1891.	1872-1881.	
Bengal	82,277	47,592,462	579	+ 2·8	+ 8·0	+ 7·7	+ 7·5	+ 6·7	+37·2
West Bengal: Burdwan Division	13,854	8,050,642	581	- 4·9	+ 2·8	+ 7·2	+ 4·0	- 2·8	+ 5·9
Central Bengal: Presidency Division.	17,410	9,461,395	543	+ 0·4	+ 5·1	+ 5·4	+ 3·9	+10·5	+27·8
North Bengal: Rajshahi Division and Cooch Behar.	20,365	10,938,153	538	+ 1·9	+ 8·0	+ 5·7	+ 4·1	+ 5·3	+25·1
East Bengal: Dacca Division ...	14,822	12,837,311	866	+ 7·1	+11·4	+ 9·6	+13·0	+14·6	+69·4
Ditto Chittagong Division and Tripura State.	15,826	6,304,961	398	+ 10·7	+14·5	+13·5	+18·0	+ 5·5	+79·0

Variations.

232. Ten years ago the population of Bengal was rather less than the population of the United Provinces, but the latter has decreased by 3·1 per cent. and Bengal now has just over a million more inhabitants than the United

Provinces, and 4¾ millions more than Madras, which has about the same number as Great Britain.

Between each successive Census, from 1872 to 1911, the population grew in an increasing proportion which rose from 6·7 per cent. in 1872—81 to 8·0 per cent. in 1901—11. This increase has fallen to 2·8 per cent. and all parts of the province have felt the disabilities of the past decade. The changes in population are generally a repetition of the changes in the previous decade, reduced always by some 5 per cent. The Western Bengal districts have lost population, Burdwan 6·5 per cent., Birbhum 9·4 per cent., Bankura 10·4 per cent., Midnapore 5·5 per cent. and Hooghly 0·9 per cent., Howrah having increased 5·7 per cent. The heaviest decrease has been along the line marking the change from the slightly undulating old alluvium of the west to the new alluvium of the Delta formation and running almost due north and south through Burdwan Division. In Central Bengal, Murshidabad and Nadia each lost 8·0 per cent., but Calcutta, the 24-Parganas and Khulna have progressed with increases of 1·3 per cent., 8·0 per cent. and 6·7 per cent. Jessore is one of the only two districts in the province which have done better during this decade than during the last, but it has lost 1·2 per cent. The other district is Bakarganj. In North Bengal, Bogra is still the most progressive district. Its population has increased 6·6 per cent. That of Darjeeling has grown 6·5 per cent., of Rangpur 5·1 per cent., of Jalpaiguri 3·7 per cent., of Dinajpur 1·0 per cent., and of Rajshahi 0·6 per cent. Pabna gained only 0·5 per cent. in the decade before and has now lost 2·7 per cent. Malda's population was growing fast until the beginning of this decade, when malaria appeared in a virulent form. An increase of 13·9 per cent. in 1901—11 has been turned to a loss of 1·8 per cent. Cooch Behar has been practically stationary. Dacca Division has progressed, although, with the exception of Bakarganj, the growth of population has been much less than in the previous decade. The population of Dacca has increased 8·3 per cent., of Mymensingh 6·9 per cent., of Faridpur 4·8 per cent. and of Bakarganj 8·2 per cent. As in the previous decade the Chittagong Division has been the most progressive locality in the province. The population of Tippera district has grown 9·7 per cent., of Noakhali 13·0 per cent., of Chittagong 6·8 per cent. and of the Chittagong Hill Tracts 12·6 per cent., while that of Tripura State has increased 32·6 per cent.

Density.

233. The average density of population in Bengal of 579 persons per square mile may be compared with the corresponding figures for England and Wales 649, Belgium 662, the United Provinces 414, Bihar and Orissa 340, Madras 279, the Punjab 184 and Bombay 143. If the hill districts of Darjeeling and the Chittagong Hill Tracts and Tripura State are excluded, the average density over the rest of Bengal is 640, but even over the plains there are very great inequalities. Every outcrop of the old alluvium marks a lowered density. The slightly undulating parts of Burdwan, Birbhum, Bankura, Midnapore, Malda, Dinajpur and Rajshahi are found to support less than 400 persons to the square mile. The same soil in Dacca and Mymensingh is hardly able to support a thicker population. The Sundarbans in Khulna, the 24-Parganas and Bakarganj are as yet incompletely developed and large forest tracts in them support no permanent population at all. For the same reason the eastern part of Jalpaiguri district and some of the islands in Bakarganj and Noakhali are sparsely peopled. The density of population runs very high in two localities, the industrial area of which Calcutta is the centre, and the centre of Eastern Bengal. In the former lie Calcutta, its five immediate suburbs in the 24-Parganas, Howrah and 23 municipal towns up and down the Hooghly, most of which contain jute mills and factories of other kinds. The densely populated area in Eastern Bengal is much larger and is purely rural. While only one-fifth of Western and of Northern Bengal and less than one-fifth of Central Bengal carry populations over 750 to the square mile, no less than 44 per cent. of the area of Eastern Bengal carries such a density. More than one-fifth of Eastern Bengal carries a density over 1,050 to the square mile. The few police-stations of Northern Bengal, which are equally thickly populated, lie along the Jamuna and belong

to the great block of seven thousand square miles which bears this phenomenally high density. It comprises Noakhali mainland, most of Tippera, Dacca, except the Madhupur jungle, all the centre of Bakarganj, the south-eastern half of Faridpur, the eastern parts of Pabna and strips in Mymensingh along the Jamuna to the west and along the lower portion of the old course of the Jamuna to the east. This area supports some 9 millions. Such a density is only reached in other parts of India in comparatively much smaller areas, in North Bihar, in the south-east of the United Provinces, at one or two points near the coast in the Bombay Presidency and in Cochin, Travancore and parts of some of the southern districts of Madras.

It is a very remarkable fact that the population is growing most rapidly in the plains in parts where the density is already very great. The weight of agricultural population which a district can bear depends, however, on the value of the gross produce of the soil, and this is by no means exactly proportionate to the area. The statistics of agriculture indicate that the total crop value per square mile in some Eastern Bengal districts is more than twice as high as in some Western Bengal districts, and there is a clear indication in the apparently unnatural difference in the growth of the population to the east and to the west, that the pressure of the population on the soil has by no means so nearly reached the maximum pressure which it can bear in such districts as Tippera, Noakhali and Dacca as in Midnapore, Bankura, Nadia, etc.

Urban population.

234. The total urban population is no more than 3,211,304, 67 per mille of the total. If Calcutta and its suburbs are left out of account, the urban population in the rest of the province is only 4 per cent. of the whole, while in India taken as a whole the proportion is 10 per cent. In England and Wales by contrast it is 79 per cent. The urban population of Bengal has increased 8·2 per cent. during the decade 1911—21, but while the average country town has grown but 2·0 per cent., the average industrial and commercial town outside Calcutta has grown 16·9 per cent. The Census figures disclose a remarkable fall in the proportion of females to males in industrial and commercial towns and some fall in the proportion in country towns, and whereas the great majority of the persons inhabiting country towns were born in the district in which the town lies, as great a proportion as 69 per cent. of the population of Bhatpara, Titagarh, Serampore, and Bhadreswar were born outside Bengal.

The towns of West and Central Bengal which are not industrial centres have generally lost population during the decade but such places as Bhadreswar, Baidyabati, Champdani, Bhatpara, Titagarh, Budge Budge, Garulia, Naihati and Kamarhati have grown considerably. Bhadreswar, Baidyabati, and Champdani together have increased by 41 per cent., Budge Budge by 43 per cent. and Bhatpara by 30 per cent. Certain towns in North Bengal have grown considerably, Rangpur by 16 per cent., Dinajpur by 13 per cent., Jalpaiguri by 27 per cent., Bogra by 35 per cent. and Saidpur, the railway centre by 63 per cent. Dacca city now has 119,450 inhabitants and has added 10 per cent. during the last ten years in spite of the reverse it experienced when in 1912 it lost its position as a provincial capital. Its population is within 500 of that of Patna, and not quite half that of Lucknow. The jute centres in Eastern Bengal have grown fast, Narayanganj by 10 per cent., Madaripur by 33 per cent. and Chandpur by 19 per cent. Mymensingh which has a considerable jute trade, has increased by 27 per cent., Barisal by 19 per cent., Comilla by 14 per cent. and Chittagong as much as 25 per cent.

Calcutta and suburbs.

235. Formerly only Cossipore-Chitpur, Maniktala and Garden Reach were treated as suburbs of Calcutta. But the South Suburban Municipality and Tollygunge are suburban in character and the importance and the growth of Howrah have been rather as a suburb of the city than as an independent centre of commerce and industry. A collection of Census Tables and a separate commentary upon the figures contained in them, has been published at each Census since 1881. It was suggested that these publications should cover all the cities of Bengal, a city being taken to be a place with more than

50,000 inhabitants. This would have included Calcutta, Howrah, Dacca, Titagarh and Bhatpara, but Dacca is a city with a character wholly different from that of Calcutta, and Titagarh and Bhatpara differ little in character from several neighbouring towns. They have none of the characters of a city and each has such a large population mainly owing to the accident that their bounds are wider than those of neighbouring municipalities and happen to include more factories. It was ultimately decided to publish separate tables and a separate commentary upon them for Calcutta and its suburbs, including the five adjoining municipalities in the 24-Parganas and the town of Howrah. The population of the area thus covered is 1,327,545 and it has increased at successive Censuses, according to the figures printed below :—

Year.	Population.	Increase in the decade.
1881	829,197	.....
1891	932,440	+ 12·5 per cent.
1901	1,145,938	+ 22·9 „
1911	1,272,279	+ 11·0 „
1921	1,327,547	+ 4·3 „

The population in the municipal area of Calcutta has in the last ten years increased by 2·8 per cent. to 885,815, in the suburbs in the 24-Parganas by 13·8 per cent. to 224,395, and in Howrah by 9·1 per cent. to 195,301. In the several wards of Calcutta the variations have followed those of the previous decade very closely, except where much land has been acquired and cleared as sites for improvements, especially along the new Central Avenue and on the site for the extension of Park Street and the new King George's Dock. The tendency shown between 1901 and 1911 for Calcutta's population to overflow into its suburbs has very decidedly decreased, but there has been an enormous increase in daily suburban passenger traffic. Calcutta's population is augmented daily by season ticket-holders who come in on the railways to the phenomenal extent of 20 per cent. of its population. Apparently the lack of sufficient communications in the city and its immediate suburbs has produced the result that workers in Calcutta prefer to live close to a station on the East Indian Railway, Bengal-Nagpur Railway, Eastern Bengal Railway, Howrah-Amta Railway or Barasat-Basirhat Railway at some distance away and come in daily by train, than to live in the immediate suburbs of the city.

Migration.

236. The balance of migration between Bengal and other parts of India is strongly in favour of Bengal, for 1,839,016 immigrants have come in and only 686,195 emigrants have gone out, but it is not so strongly in Bengal's favour as ten years ago, when 1,817,775 had come in, very slightly less than at present while only 552,587 born in Bengal were found in other parts of the country, four-fifths of the present number. The numbers of immigrants from other parts of India are given below :—

Immigrants from :—	
Bihar and Orissa	1,227,579
United Provinces	343,095
Assam	68,802
Central Provinces and Berar	54,810
Rajputana Agency	47,865
Madras	32,024
The Punjab and Delhi	17,715
Sikkim	4,057
Burma	2,361

In addition, 87,285 were found to have been born in Nepal, 13,356 in Europe, and 3,856 in China. Other parts than those which have been mentioned, send fewer recruits. Immigrations from Bihar and Orissa, the United Provinces, and Nepal has fallen off, but from the Central Provinces, Rajputana Agency, Madras and Bombay has increased. Emigrants from Bengal have gone mostly to Assam, 375,578, Burma 146,087, and

Bihar and Orissa, 116,922. During the last ten years migration to Assam, especially from Mymensingh district to the lower Assam valley districts, has almost doubled and that to Burma has somewhat increased, but that to Bihar and Orissa has fallen off greatly. Within the province decidedly fewer persons were found outside their home districts than in 1911 and apparently the population is less fluid than it was 10 years ago. East Bengal sends a balance of some 69,000 to North Bengal, some 67,000 to Central Bengal and some 7,000 to West Bengal. West Bengal sends 122,000 to Central Bengal and some 4,000 to North Bengal, and the balance between Central and North Bengal is some 76,000 in favour of the latter.

The most important streams of migration affecting the province are :—

(1) *From Bihar and the adjoining districts of the United Provinces to the industrial area round Calcutta and to a less extent to other parts.*—Besides those immigrants who find employment in organised industry, large numbers follow their traditional caste occupations, cobblers, carters, milkmen, palki-bearers, earth workers and so on, though few Biharis engage in agricultural labour or are permitted to obtain the rights of cultivators. This stream is not running so strongly as in 1911.

(2) *From the coastwise districts of Orissa.*—Most Oriya immigrants are mere casual labourers, though they include also numbers of needy Brahmans who have found employment as cooks.

(3) *The overflow from the Sontal Parganas into Birbhum, Burdwan and Murshidabad and across the Ganges into Northern Bengal.*—The number of such immigrants does not appear so large as in 1911 mainly for the reason that such people have found unoccupied land on which to settle, and their native born children are now taking the place of the immigrant generation. The stream, however, still shows no sign of cessation.

(4) *From Chota Nagpur to Jalpaiguri.*—This is labour imported by the tea industry, which does not now favour the employment of Nepalese labour in the Duars. The great majority of the coolies come from Ranchi district. A new development has begun in the last decade in recruitment from certain parts of the Central Provinces.

(5) *From Nepal.*—Darjeeling and Sikkim may almost be said to have been repopulated from Nepal, the former since 1850 and the latter in the last 30 years. Nepalese still come in, though not in quite such numbers as formerly and the number of immigrants in Darjeeling has decreased since original settlers are being succeeded by their native born children. The number of Nepalese immigrants in Jalpaiguri district has varied with their employment in the tea gardens, but is decidedly less than in 1911.

(6) *From Murshidabad and to a less extent from Nadia across the Ganges into Rajshahi and Malda.*—In spite of the decreased population in Murshidabad and Nadia the pressure of the population on a soil whose capabilities appear to be deteriorating, continues to drive an increasing number to seek their fortunes across the river.

(7) *From Bankura to rural parts of Burdwan and Hooghly.*—Bankura people do not favour the towns but prefer to find agricultural work to do, if they have to go outside the borders of their home districts, though a certain number are attracted to the coal mines of Asansol.

(8) *From Midnapore to the industrial area.*—Midnapore has taken the lead of other Bengal districts in sending recruits to the mill towns up and down the Hooghly and to Calcutta. Formerly Hooghly used to send many to Howrah, but those who went in search of employment in manual labour now find they

can obtain work enough in their own district. A number of clerks and others still go from Hooghly to Calcutta, but a great many more than formerly now make use of the suburban railway service on the East Indian Railway and live at home.

(9) *Northwards, parallel to the course of the Jamuna river.*—Pabna people have for several decades passed north to new formations beside the river in Bogra and Rangpur. Latterly more have crossed from Mymensingh into Rangpur. From both districts the emigrants have been mostly Muhammadans. Another class, mostly Rajbansis and not persons attracted to the new alluvial lands close to the river, have for many years kept up a stream of migration from Rangpur to Cooch Behar and from Cooch Behar to Jalpaiguri. This migration is falling off as land in Jalpaiguri has been more and more occupied. The emigrants can go no further north than Jalpaiguri because of the hills, but some have passed on eastward into Goalpara.

(10) *From Mymensingh into the Assam Valley.*—The development of this migration of recent years has been very remarkable. In 1901 only 2,400 Mymensingh people were found in Goalpara, 650 in Nowgong, and smaller numbers in other Assam valley districts. In 1911 Goalpara had 34,000, but no district further up as many as a thousand. Now Goalpara has 78,000, Kamrup 30,000. Darang 12,500 and Nowgong 52,000. Something like 150,000 persons must have migrated from Mymensingh into this part of Assam in the last 10 years. It is all permanent migration and the people have gone by whole families. The immigrants include 4 females to every 5 males.

(11) *From Tippera and Sylhet districts into Tripura State.*—There is a marked contrast between the progress of development in the Chittagong Hill Tracts and in Tripura State. The valleys in the former are much the narrower and run generally north and south with few openings towards the plains inviting plainsmen to enter them. Tripura State is less mountainous and, especially towards the north, wide open valleys debouch on to the plains. The State now contains some 26,000 born in Tippera district and some 34,000 born in Sylhet. Migration from Sylhet has steadily increased since 1891, as would that from Tippera appear to have done but for an influx of temporary migration to the State about 1911.

(12) *From Chittagong Division into Burma.*—This is migration for the winter season and involved a rather larger number in 1921 than in 1911. It is an old standing arrangement, for the Census of 1891 showed as many as 100,000 involved.

Migration to Calcutta.

237. Migration to Calcutta from the United Provinces had begun to fall off before 1911, probably owing to the fact that organised industry was being developed in its immediate neighbourhood rather than the city itself. The last decade has shown a decided decrease in the number of immigrants of the artisan and labouring classes from Bihar, Orissa and the United Provinces, but an increase among the immigrant mercantile classes, especially from Bikanir and Jaipur. The Census of 1921 showed that no less than 17 in every thousand born in Bikanir had found their way to Calcutta, and 4 in every thousand born in Jaipur. It showed, however, a distinct increase in the proportion of native born in the city, some increase in the proportion whose language is Bengali and an important decrease in the number speaking Hindi or Urdu. The effect of the first partition of Bengal showed itself in a reduction of migration from the Dacca and Rajshahi Divisions to Calcutta by 1911, but the increase since 1912 when Bengal once more became a single province, has more than made up for this. The number from the Chittagong Division has been little affected by administrative changes, for they are people employed in and about the port, and, as would be expected, were independent of them. It does not seem likely that the separation of

Bihar and Orissa has affected immigration either to Calcutta or to other parts of Bengal appreciably, though there are signs of its work in the large reduction of the number of emigrants from Bengal to the adjoining province. These commonly found employment as clerks and ministerial officers and in the professions. Since, however, their numbers have decreased also in the United Provinces and in the Central Provinces, it may be taken that the reduction is partly due to the spread of education in Bihar and Orissa rendering it possible to supply more of the demand for clerical labour from local sources.

Religion.

238. The distribution of the population of Bengal according to religion in 1911 and 1921 is shown below:—

	Number— 1921.	1911.	Variation per cent. 1911—21.
Mussalman	25,486,124	24,236,756	+ 5·2
Hindu	20,809,148	20,945.379	- 0·7
Animist	849,045	730,780	+ 16·2
Buddhist	275,759	246,866	+ 11·4
Christian	149,075	129,746	+ 14·9
Jain	13,369	6,782	+ 97·1
Brahmo	3,284	2,958	+ 11·0
Sikh	2,380	2,221	+ 7·1
Jew	1,851	1,993	- 7·3
Confucian	1,443	1.058	+ 36·4
Zoroastrian	770	611	+ 26·0
Arjya	.214	20	...

Muhammadans.

239. Muhammadans now form 53·55 per cent. of the population, Hindus 43·72 per cent. Animists 1·79 per cent. and others 0·94 per cent. In 1881 Muhammadans had but a slight majority over Hindus. They formed 49·69 per cent. of the total and Hindus 48·82 per cent., but at each successive census the proportion of Muhammadans, of Animists and of the less numerous communities together has increased, while the proportion of Hindus has decreased. The last decade is the first, however, in which the actual total of Hindus has decreased, and the decrease now is due to the fact that Hindus are more numerous in Western Bengal, the quarter of the province which has suffered the greatest decrease in population during the decade. The proportion of Hindus and Muhammadans in the total population of the several divisions of the province in 1911 and in 1921 is given in the following table:—

Division.	Proportion per 10,000 of the total population which was— Muhammadan. 1921.	1911.	Hindu. 1921.	1911.
West Bengal : Burdwan Division ...	1,344	1,344	8,207	8,319
Central Bengal : Presidency Division ...	4,732	4,834	5,047	5,023
North Bengal : Rajshahi Division and Cooch Behar	5,982	5,927	3,738	3,921
East Bengal : Dacca Division	6,969	6,934	2,970	3,102
East Bengal : Chittagong Division and Tripura State	7,040	7,000	2,601	2,620

Hindus.

240. Hindus are in large majority in West Bengal and in a small majority in Central Bengal. Muhammadans are in a considerable majority in North Bengal and in a large majority in East Bengal. Almost everywhere the Muhammadan population has the greater fecundity, and the proportion of Hindus has increased and the proportion of Muhammadans has decreased

only in Central Bengal. The explanation of the exception is two-fold. Partly it is due to the fact that Hindus are in a large majority among immigrants to Calcutta and its neighbourhood and partly to the fact that the unhealthiest parts of the Presidency Division are those in which Muhammadans predominate. In West Bengal it is the Animist element that has increased at the expense of the Hindu. The same has happened in North Bengal, but there the greater fecundity among the Muhammadans is in evidence, and it is the sole reason for the disproportionate progress of the

Animists. two communities in Eastern Bengal. Half the Animists in the province are to be found in North Bengal and nearly three-quarters of the remainder in the western parts of the Burdwan Division. The number has increased mainly through immigration in West and North Bengal, but is partly due to greater fertility among them than among their neighbours, for very few of their women of child-bearing age remain widows. Two hundred thousand of the Buddhists are found in Chittagong and the Chittagong Hill Tracts, where they are Maghs and Chakmas. Most of the rest are found in Darjeeling district, where the indigenous Lepchas and the immigrant Bhutanese are Buddhist by religion. A few of these have descended to the plains in Jalpaiguri district and there are Buddhist elements in Tripura State and in the Sundarbans of Bakarganj, where Maghs have undertaken colonization. The Buddhist community of the Himalayas has increased by 3·7 per cent. during the decade, but that in Chittagong and in the hills behind has grown

Christians. by 13·5 per cent. Christians are most numerous in Calcutta and its neighbourhood. Outside the city the greatest number are to be found in the 24-Parganas 18,555, Dacca 13,377, Jalpaiguri 8,726, Nadia 8,533, Darjeeling 8,098, Bakarganj 7,574, Faridpur 6,299, Midnapore 5,838 and Dinajpur 5,009. The sects returned are detailed below :—

Roman Catholic	50,557
Anglican	32,736
Baptist	30,647
Presbyterian	12,214
Methodist	3,689
Congregationalist	1,651
Lutheran	1,258
Armenian	831
Minor Protestant Denominations	476
Greek Church	118
Romo-Syrian	40
Protestant (Unsectarian or sect not specified)	3,447
Sect not returned	11,405
Indefinite beliefs	123

Of the total number of Christians 22,730 are Europeans, 22,250 Anglo-Indians and the rest, 104,212 Indian Christians, who comprise two-thirds of the total. Generally speaking Europeans favour the Anglican Communion and Anglo-Indians the Roman Catholic faith. There are comparatively very few of either belonging to the Baptist, Congregationalist, Methodist and Lutheran denominations, whose numbers are mainly made up of Indian converts.

The English Baptists have been the most active in making converts, working in the southern halves of the Presidency and Dacca Divisions. The Australian Baptist Missions working generally from the eastern part of North Bengal across to Tippera and Noakahli have made little progress. Indians adhering to the Roman Catholic Church are to be found in greatest numbers in Nadia and Jessore and in Dacca and Bakarganj, the Presbyterians have been most active in the Himalayas, the Anglicans in and around Calcutta and in Midnapore and the Methodists around Asansol and Bankura.

The Jains have doubled their number since 1911. They are almost all of them Marwari immigrants; 5,524 were found in Calcutta city, as compared with only 1,797 ten years previously. Outside they are most frequently

met with in North Bengal, particularly in Rangpur. There are some in Murshidabad, but they hardly penetrate Eastern Bengal.

241. The mean age, *i.e.*, the average age of persons who were alive on the date of the Census depends largely on the proportions of children and old people to the population. It has increased mainly through the reduction of the birth-rate during the latter half of the last decade. According to the age statistics as returned it is as given below:— **Age.**

	MEAN AGE IN YEARS.	
	Males.	Females.
Bengal	23·9	23·1
West Bengal : Burdwan Division	25·0	25·2
Central Bengal : Presidency Division	25·2	24·6
North Bengal : Rajshahi Division and Cooch Behar ...	23·3	22·5
East Bengal : Dacca Division	23·2	22·2
Chittagong Division and Tripura State	22·7	21·9

In the neighbourhood of Calcutta it is raised by the influx of audit immigrants, especially males. The proportion of children under 10 to married females between 15 and 40 which affords the best criterion available of the natural fecundity of the population, is highest in Cooch Behar, Rangpur, Mymensingh and the Chittagong Hill Tracts. Then come Noakhali, Tripura State, Malda, Dacca, Tippera, Dinajpur, Chittagong, Jalpaiguri, Pabna, Bogra, Faridpur, Khulna and Darjeeling in that order. There is a considerable drop to Rajshahi and Bakarganj and a further drop to the 24-Parganas, Nadia, Jessore, Bankura, Murshidabad, Midnapore and Howrah, and the proportion is lowest of all in Hooghly, Birbhum, Burdwan and Calcutta. Longevity in males is generally greatest in the districts of the lower delta and in females in Central and West Bengal.

242. The disparity of the sexes in Bengal has steadily become more noticeable since 1881. There are now only 932 females per 1,000 males, as compared with 945 in 1911. Immigration is partly responsible, but not entirely, for in the natural population, *i.e.*, people actually born in Bengal (whether found in it or elsewhere at the time of the census), there are no more than 954 females per 1,000 males and this proportion has fallen steadily in the last 40 years. **Sex.**

243. The statistics of civil condition emphasize the universality of marriage, especially in the case of females in Bengal and the early age at which females are married. Nearly half the male population and nearly two-thirds of the female population are married or widowed. Of those over 15 years of age, only 211 per mille males are still unmarried and only 18 per mille females, while the corresponding proportions in England and Wales in 1911 were 403 in the case of males, and 390 in the case of females. There has, however, since 1911 been a decided rise in the average age at which marriage takes place. In this matter the *bhadralok* Hindus and especially the Baidyas have taken the lead. Among some sections lower down in the social scale there has been a tendency on the other hand to lower the age at which girls are married, though not the age at which boys are married. The tendency of Hinduism to reduce the age of marriage, especially of girls, in aboriginal tribes who are giving up their tribal beliefs, is again noticeable in the statistics of this Census. The proportion of widowers among males is not abnormal, but the proportion of widows is remarkably high, especially at the higher ages. In the case of Hindus the number of widows between the ages of 15 and 20, is 94 per mille, between 20 and 25 is 154, between 25 and 30 is 236, 30 and 35 is 343, 35 and 40 is 455, 40 and 45 is 578, 45 and 50 is 677, and so on, rising to 910 above the age of 70. The proportion among the Muhammadans rises almost as high towards the end of life, but is very much lower in the earlier ages, for the reason that Muhammadan widows may marry again. The number of Muhammadan widows per mille is only 41 between the ages of 15 and 20, 61 between 20 and 25, 105 between 25 and 30, 196 between 30 and 35 and 321 between 35 and 40. **Civil condition.**

Infirmities.

244. The numbers of persons afflicted with insanity, deaf-mutism, total blindness and leprosy and the proportion these bear to the total population are shown below :—

	Number.	Proportion per 100,000.	Corresponding proportion in 1911.
Insane	19,564	41	43
Deaf-mutes	32,028	67	69
Blind	34,215	72	71
Lepers	15,897	33	38

There is a great deal of insanity in the Eastern Hill Tracts, but little in Darjeeling district. Jalpaiguri, Cooch Behar, Rangpur, Dinajpur, Pabna have between 50 and 85 per 100,000 insane, while Burdwan and adjoining districts are comparatively immune. The proportion in Khulna, Jessore, Dacca and Faridpur, is above the average for the province and below it in Bakarganj, Noakhali, Tippera and Mymensingh. Deaf-mutism is most prevalent in the Northern and Eastern Hills and in those districts of Northern Bengal which are watered by Himalayan rivers. Blindness is most frequently met with on the arid soil of the western part of the province and is least common in the Lower Delta, where the climate is more humid, there is less dust and the country-side retains its greenness throughout the year. It is common in the Chittagong Hill Tracts and in Jalpaiguri and Cooch Behar, but Darjeeling district is comparatively immune. Leprosy is very much less prevalent than 40 years ago when it was as common in the Rajshahi and Presidency Divisions as it is now in Burdwan Division. The greatest improvement has been in the Presidency Division, where the proportion of lepers to the total population is now only 29 per cent. of what it was in 1881. Excluding Bankura, Burdwan and Birbhum, the proportion of lepers to the total population is now only 22 per 100,000. There has been a gradual decrease in the number of lepers in Burdwan and Birbhum continuously since 1901, but the figure for Bankura has risen from 2,645 to 2,752 in the last decade.

Languages.

245. The Indian languages spoken in Bengal belong to one or other of the following four linguistic families:—

(1) Indo-European.
(2) Austro-Asiatic.
(3) Dravidian.
(4) Tibeto-Chinese.

The languages of the Indo-European family consists mainly of Bengali, Hindi, Urdu, Uriya and Nepali; the Austro-Asiatic family comprises the Munda languages, while the Dravidian languages are represented chiefly by Oraon. The Tibeto-Chinese family comprises the Tibeto-Burman languages, which are subdivided into Tibeto-Himalayan languages, *e.g.*, Bhotia and Nepalese tribal languages, and Assam-Burmese languages, such as Bodo, Mech, Garo, Tipra and Burmese.

Though 80 different languages are found spoken in Bengal, there is no other province in India which presents the same homogeneity in the matter of language, except the United Provinces, in which 99 per cent. speak some form of Hindi. Bengali is the mother tongue of 92 per cent. of the total population of Bengal. The following table shows the relative preponderance of Bengali-speaking persons in the four main divisions of the province:—

	Number per 10,000 speaking Bengali.
Bengal	9,197
West Bengal : Burdwan Division	8,725
Central Bengal : Presidency Division	9,035
North Bengal : Rajshahi Division and Cooch Behar	9,737
East Bengal : Dacca Division	9,843
Chittagong Division and Tripura State	9,522

The other languages most frequently returned were, Hindi and Urdu with 1,806,878 speakers, *i.e.*, 380 per 10,000 of the population, Kherwari with 816,467 speakers, *i.e.*, 172 per 10,000; Oriya with 298,372, speakers, *i.e.*, 63 per 10,000, Tipra (Mrung) with 158,734 speakers *i.e.*, 33 per 10,000,

Eastern Paharia (Khas Kura) with 93,060 speakers, *i.e.*, 20 per 10,000, and Arakanese (Maghi) with 56,858 speakers, *i.e.*, 12 per 10,000. In the northern hills there are 16 languages (counting the Bhotia language as one) belonging to the Tibeto-Himalayan branch of the Tibeto-Chinese family with some 487,000 speakers. On the eastern side of the province the Garo and Koch languages with Tipra and a few speakers of Bara (Bodo) and Rabha bring up the number using languages of the Assam-Burmese branch of the same family to nearly 226,000. The Kuki-Chin group in the Eastern hills contributes 30,000 and the Burmese group 85,000. Dravidian languages have 218,000 speakers, most of whom are Kurukh (Oraon) immigrants; 53,000 speak languages foreign to India.

Education.

246. Those who could write a letter to a friend and read an answer to it were returned as literate in the census schedules. In Bengal only 104 per mille of the population aged 5 and over have reached this standard, 181 per mille in the case of males and 21 per mille in the case of females. There has been considerable progress since 1911, when the corresponding proportion for males was 161 and for females only 13, and Bengal stands next to Burma, which leads the rest of India in this respect. Burma has 317 literates per mille over the age of 5, Madras 98, Bombay 83, Assam 63, Bihar and Orissa 51 and the Punjab 45. The proportions per mille among the adherents of the main religious are shown below:—

	Literate per mille age 5 and over.	
	Males	Females.
Hindus	268	36
Muhammadans	109	6
Indian Christians	317	164
Buddhists	169	19
Animists	14	1

The rate of literacy is highest in the Presidency Division, which has 143 per mille of both sexes. Next comes the Burdwan Division with 127, followed by the Chittagong Division and Tripura State with 93, the Dacca Division with 90, and lastly the Rajshahi Division and Cooch Behar with 75.

Occupation.

247. The scheme of classification of occupations used at this Census followed very closely the scheme used in 1911 which was based on that of M. Bertillon. The results of the census of occupations are shown in the following figures:—

	Total numbers and dependents.	Actual workers.	
		Males.	Females.
I.—Exploitation of animals and vegetation	37,429,852	10,824,706	1,264,512
II.—Exploitation of minerals ...	97,471	38,258	29,073
III.—Industry	3,621,831	1,245,599	428,691
IV.—Transport	739,490	354,004	17,799
V.—Trade	2,439,859	801,447	182,558
VI.—Public Force	177,657	68,565	.....
VII.—Public Administration	144,269	47,893	404
VIII.—Profession and Liberal Arts ...	783,288	236,352	16,770
IX.—Persons living principally on their income	37,420	10,206	3,440
X.—Domestic Service	688,268	338,881	116,365
XI.—Insufficiently described occupations	980,187	405,530	54,393
XII.—Unproductive occupations ...	452,870	128,202	157,882

Pasture and agriculture support some four-fifths of the population, including those who depend upon agricultural rents and their agents. About two-thirds of the total are ordinary cultivators. Industry supports only 7½ per cent. of the population, and its slow development is shown by the fact that the number supported by it has increased by only 181,181 since 1911. Transport supports 1½ per cent. and trade a little more than 5 per cent. of the total. The public force is phenomenally small compared with that in other countries, less than 0·4 per cent., and public administration also supports a very small proportion (about 0·3 per cent.), compared with the proportion in European countries. The professions and liberal arts are weak, supporting only a little over 1½ per cent. and domestic servants (less than 1½ per cent.) are also comparatively few. Nearly a million described their means of sustenance so vaguely that they could not be classified. It has always been very difficult to prevent such entries as *chakari* (service) and *dainik majur* (daily labour) from being returned. For a comparatively poor country the fact that nearly 1 per cent. are engaged in prostitution, begging and other unproductive industries cannot pass without remark.

TABLE I.—AREA, HOUSES AND POPULATION.

DISTRICT OR STATE.	Area in square miles.	Towns.	Villages.	OCCUPIED HOUSES.			POPULATION.								
							PERSONS.			MALES.			FEMALES.		
				Total.	In towns.	In villages.	Total.	Urban.	Rural.	Total.	Urban.	Rural.	Total.	Urban.	Rural.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
BENGAL	*82,277*	*135*	*89,525*	*9,342,819*	*715,126*	*8,627,693*	*47,592,462*	*3,211,304*	*44,381,158*	*24,628,385*	*1,991,539*	*22,636,826*	*22,964,097*	*1,219,765*	*21,744,332*
(1) BRITISH TERRITORY ...	*76,843*	*130*	*84,981*	*9,171,143*	*709,808*	*8,461,335*	*46,695,538*	*3,188,300*	*43,509,238*	*24,161,222*	*1,978,246*	*22,174,976*	*22,544,314*	*1,210,054*	*21,334,260*
BURDWAN DIVISION	*13,854*	*33*	*22,500*	*1,859,717*	*169,455*	*1,690,262*	*8,050,642*	*674,600*	*7,376,042*	*4,100,760*	*404,572*	*3,696,188*	*3,949,882*	*270,028*	*3,679,854*
Burdwa	2,703	6	2,811	359,195	23,556	335,639	1,438,926	95,741	1,343,185	732,369	53,547	678,822	706,557	42,194	664,363
Birbhum	1,753	3	2,299	202,318	5,624	196,694	847,570	23,251	824,319	422,986	12,737	410,249	424,584	10,514	414,070
Bankura	2,625	4	3,999	228,768	14,464	214,302	1,019,941	60,889	959,052	509,334	31,136	478,198	510,607	29,753	480,854
Midnapore	5,055	8	10,343	579,118	24,193	554,925	2,686,660	96,869	2,569,791	1,339,652	52,977	1,286,675	1,327,008	43,892	1,283,116
Hooghly	1,188	10	2,187	272,961	50,874	222,087	1,080,142	179,340	900,802	561,268	110,439	450,829	518,874	68,901	449,973
Howrah	530	2	861	217,359	50,744	166,615	997,403	218,510	778,893	535,151	143,736	391,415	462,252	74,774	387,478
PRESIDENCY DIVISION ...	*17,410*	*51*	*13,328*	*1,904,689*	*392,197*	*1,512,492*	*9,461,395*	*1,775,704*	*7,685,691*	*5,089,511*	*1,140,238*	*3,949,273*	*4,371,884*	*635,466*	*3,736,418*
24-Parganas	4,856	28	3,399	533,607	166,969	366,638	2,623,205	625,887	1,998,318	1,430,718	397,749	1,032,969	1,197,487	232,138	965,349
Calcutta	21	1	...	171,448	171,448	...	907,851	907,851	...	617,590	617,590	...	290,261	290,261	...
Nadia	2,778	9	2,344	335,006	23,499	311,507	1,487,572	93,868	1,390,704	761,345	48,571	712,774	726,227	48,297	677,930
Murshidabad	2,121	7	1,967	280,084	19,559	260,525	1,262,514	87,885	1,174,629	628,742	45,419	583,323	633,772	42,466	591,306
Jessore	2,904	3	3,610	343,224	4,596	338,628	1,722,219	21,295	1,700,924	893,592	12,301	881,291	828,627	8,994	819,633
Khulna	4,730	3	2,008	241,320	6,126	235,194	1,453,034	31,918	1,421,116	757,524	18,608	738,916	695,510	13,310	682,200
RAJSHAHI DIVISION	*19,047*	*20*	*23,785*	*1,941,634*	*50,352*	*1,891,282*	*10,345,664*	*235,600*	*10,110,064*	*5,371,352*	*134,972*	*5,236,380*	*4,974,312*	*100,628*	*4,873,684*
Rajshahi	2,620	2	4,485	301,474	6,458	295,016	1,488,675	32,638	1,457,037	767,370	18,249	749,121	722,305	14,389	707,916
Dinajpur	3,916	1	6,611	312,638	3,588	309,050	1,705,353	18,025	1,687,328	898,400	10,973	885,427	808,953	7,052	801,901
Jalpaiguri	2,931	2	720	193,009	3,283	189,726	936,269	14,813	921,456	503,397	9,165	491,232	432,872	5,648	427,224
Darjeeling	1,164	2	302	65,008	7,216	57,792	282,743	28,703	254,045	149,094	16,152	132,942	133,654	12,551	121,103
Rangpur	3,496	6	4,046	439,321	10,397	428,924	2,507,854	50,419	2,457,435	1,316,340	31,327	1,285,513	1,191,014	19,092	1,171,922
Bogra	1,379	2	2,778	182,985	3,107	179,878	1,048,606	16,306	1,032,300	538,727	9,372	529,355	509,879	6,934	502,945
Pabna	1,678	2	2,537	282,352	9,771	252,581	1,389,494	44,861	1,344,633	706,702	24,108	682,594	682,792	20,753	662,039
Malda	1,833	3	2,236	184,867	6,532	178,335	985,665	29,835	955,830	492,822	15,626	477,196	492,843	14,209	478,634
DACCA DIVISION	*14,822*	*20*	*18,424*	*2,358,921*	*75,879*	*2,281,042*	*12,837,311*	*387,573*	*12,448,738*	*6,573,575*	*226,574*	*6,347,001*	*6,263,736*	*160,999*	*6,102,737*
Dacca	2,723	2	4,735	578,829	27,753	549,076	3,125,967	150,052	2,975,915	1,572,220	86,775	1,485,445	1,553,747	63,277	1,490,470
Mymensingh	6,238	8	7,346	813,059	25,407	787,652	4,857,750	127,061	4,730,689	2,510,450	72,211	2,438,239	2,327,280	54,850	2,272,430
Faridpur	2,371	4	3,359	430,365	10,543	420,322	2,249,858	50,553	2,199,305	1,147,742	29,112	1,118,630	1,102,116	21,441	1,080,675
Bakarganj	3,490	6	2,984	536,168	12,176	523,992	2,623,758	59,907	2,563,849	1,343,163	38,476	1,304,687	1,280,595	21,431	1,259,162
CHITTAGONG DIVISION ...	*11,710*	*6*	*6,964*	*1,108,182*	*21,925*	*1,086,257*	*6,000,524*	*112,823*	*5,887,701*	*3,016,024*	*69,890*	*2,946,134*	*2,984,500*	*42,933*	*2,941,567*
Tippera	2,560	3	4,015	480,501	12,574	467,927	2,743,073	64,446	2,678,627	1,406,134	38,536	1,367,598	1,336,939	25,910	1,311,029
Noakhali	1,515	1	1,718	266,109	893	265,216	1,472,786	7,715	1,465,071	738,722	4,876	733,846	734,064	2,839	731,225
Chittagong	2,497	2	868	332,023	8,458	323,565	1,611,422	40,662	1,570,760	777,882	26,478	751,404	833,540	14,184	819,356
Chittagong Hill Tracts ...	5,138	...	363	29,549	...	29,549	173,243	...	173,243	93,286	...	93,286	79,957	...	79,957
(2) BENGAL STATES	*5,434*	*5*	*4,544*	*171,676*	*5,318*	*166,358*	*898,926*	*25,004*	*871,922*	*477,143*	*15,293*	*461,850*	*419,783*	*9,711*	*410,072*
Cooch Behar	1,318	4	1,171	114,583	3,844	110,739	592,489	17,261	575,228	315,623	10,960	304,668	276,861	6,301	270,560
Tripura State	4,116	1	3,373	57,093	1,474	55,619	306,437	7,743	298,694	161,515	4,333	157,182	142,922	3,410	139,512
SIKKIM	*2,818*	...	*407*	*14,777*	...	*14,777*	*81,721*	...	*81,721*	*41,492*	...	*41,492*	*40,229*	...	*40,229*
BRITISH SUBJECTS IN FRENCH CHANDERNAGORE.	...	...	...	...	...	...	*14,450*	...	...	...	...	...	...	...	...

TABLE II.—VARIATION IN POPULATION SINCE 1872.

DISTRICT OR STATE.	PERSONS.						VARIATION. INCREASE (+), DECREASE (-).					NET VARIATION IN PERIOD 1872—1921. Increase (+), Decrease (-).
	1921.	1911.	1901.	1891.	1881.	1872.	1911—1921.	1901—1911.	1891—1901.	1881—1891.	1872—1881.	
1	2	3	4	5	6	7	8	9	10	11	12	13
BENGAL	47,592,462	46,305,170	42,881,359	39,805,527	37,014,621	34,687,003	+ 1,287,292	+ 3,423,811	+ 3,075,832	+ 2,790,906	+ 2,327,618	+12,905,459
(1) British Territory	46,695,536	45,482,605	42,141,060	39,089,217	36,316,360	34,119,176	+ 1,212,931	+ 3,341,545	+ 3,051,843	+ 2,772,857	+ 2,197,184	+12,576,360
BURDWAN DIVISION	8,050,042	8,467,506	8,240,261	7,689,352	7,394,115	7,604,834	- 416,864	+ 227,245	+ 550,909	+ 295,237	- 210,719	+ 445,808
Burdwan	1,438,926	1,538,371	1,532,716	1,392,099	1,394,439	1,486 634	- 99,445	+ 5,655	+ 140,617	- 2,340	- 92,195	- 47,708
Birbhum	847,570	935,665	902,465	798,417	792,192	851,408	- 88,095	+ 33,200	+ 104,048	+ 6,225	- 59,216	- 3,838
Bankura	1,019,941	1,138,670	1,116,411	1,069,668	1,041,752	968,597	- 118,729	+ 22,259	+ 46,743	+ 27,916	+ 73,155	+ 51,344
Midnapore	2,668,660	2,821,201	2,789,114	2,631,466	2,515,565	2,542,920	- 154,541	+ 32,087	+ 157,648	+ 115,901	- 27,355	+ 125,740
Hooghly	1,090,142	1,090,097	1,049,041	1,034,077	974,773	1,119,397	- 9,955	+ 41,056	+ 14,964	+ 59,304	- 144,624	- 29,255
Howrah	997,403	943,502	850,514	763,625	675,394	635,878	+ 53,901	+ 92,988	+ 86,889	+ 88,231	+ 39,516	+ 361,525
PRESIDENCY DIVISION	9,461,395	9,425,693	8,964,076	8,505,304	8,182,493	7,403,319	+ 35,701	+ 461,618	+ 458,772	+ 322,811	+ 779,174	+ 2,058,076
24-Parganas	2,628,205	2,424,104	2,078,359	1,891,288	1,690,771	1,581,448	+ 194,101	+ 355,745	+ 187,071	+ 200,517	+ 109,323	+ 1,046,757
Calcutta	907,851	896,067	847,796	682,305	612,307	633,009	+ 11,784	+ 40,271	+ 165,491	+ 69,998	- 20,702	+ 274,842
Nadia	1,487,572	1,617,462	1,657,888	1,634,058	1,653,198	1,491,962	- 129,890	- 40,426	+ 23,830	- 19,140	+ 161,236	- 4,390
Murshidabad	1,262,514	1,372,274	1,333,184	1,250,946	1,226,790	1,214,104	- 109,760	+ 39,090	+ 82,238	+ 24,156	+ 12,686	+ 48,410
Jessore	1,732,219	1,743,371	1,797,794	1,872,803	1,922,916	1,439,249	- 24,152	- 54,423	- 75,009	- 50,113	+ 483,667	+ 282,970
Khulna	1,453,034	1,362,416	1,249,055	1,173,904	1,076,511	1,043,547	+ 90,618	+ 113,361	+ 75,151	+ 97,393	+ 32,964	+ 409,487
RAJSHAHI DIVISION	10,345,664	10,138,302	9,373,820	8,826,960	8,421,592	8,045,432	+ 207,362	+ 764,482	+ 546,860	+ 395,368	+ 386,160	+ 2,300,232
Rajshahi	1,489,675	1,480,587	1,460,584	1,437,859	1,449,033	1,421,865	+ 9,088	+ 20,003	+ 22,725	- 11,174	+ 27,168	+ 67,810
Dinajpur	1,705,353	1,687,863	1,566,845	1,482,355	1,442,320	1,429,900	+ 17,490	+ 121,018	+ 84,490	+ 40,035	+ 12,420	+ 275,453
Jalpaiguri	936,269	902,660	786,226	679,623	579,378	416,781	+ 33,609	+ 116,334	+ 106,703	+ 100,250	+ 162,592	+ 519,488
Darjeeling	282,748	265,550	249,117	223,314	155,645	94,996	+ 17,198	+ 16,433	+ 25,803	+ 67,669	+ 60,649	+ 187,752
Rangpur	2,507,854	2,385,330	2,154,115	2,065,249	2,007,553	2,153,061	+ 122,524	+ 231,215	+ 88,866	- 32,304	- 55,508	+ 354,793
Bogra	1,048,606	983,567	853,504	763,574	686,185	641,281	+ 65,039	+ 130,063	+ 89,930	+ 77,389	+ 44,904	+ 407,325
Pabna	1,389,494	1,428,586	1,421,395	1,362,225	1,311,649	1,211,570	- 39,092	+ 7,191	+ 59,170	+ 50,576	+ 100,079	+ 177,924
Malda	965,665	1,004,159	881,734	812,761	709,834	675,978	- 18,494	+ 122,425	+ 68,973	+ 102,927	+ 33,856	+ 309,687
DACCA DIVISION	12,837,311	11,984,527	10,761,011	9,819,426	8,688,460	7,579,752	+ 852,784	+ 1,223,516	+ 941,585	+ 1,130,966	+ 1,108,708	+ 5,257,559
Dacca	3,125,967	2,887,472	2,579,290	2,331,959	2,035,656	1,779,924	+ 238,495	+ 308,182	+ 247,331	+ 296,303	+ 255,732	+ 1,346,043
Mymensingh	4,837,730	4,526,422	3,918,102	3,475,166	3,058,332	2,354,794	+ 311,308	+ 608,320	+ 442,936	+ 416,844	+ 703,538	+ 2,482,936
Faridpur	2,249,868	2,145,851	1,975,608	1,861,789	1,696,635	1,560,337	+ 104,007	+ 170,245	+ 113,817	+ 165,154	+ 136,298	+ 689,521
Bakarganj	2,623,768	2,424,782	2,288,013	2,150,512	1,897,847	1,884,697	+ 198,974	+ 136,769	+ 137,501	+ 252,665	+ 13,150	+ 739,059
CHITTAGONG DIVISION	6,000,524	5,466,576	4,802,092	4,248,175	3,619,700	3,485,839	+ 533,948	+ 664,484	+ 553,917	+ 628,475	+ 133,861	+ 2,514,685
Tippera	2,743,073	2,500,872	2,181,168	1,889,982	1,564,139	1,447,583	+ 242,201	+ 319,704	+ 341,186	+ 275,843	+ 116,556	+ 1,295,490
Noakhali	1,472,766	1,303,441	1,142,912	1,010,740	821,623	841,247	+ 169,345	+ 160,529	+ 132,172	+ 189,117	- 19,624	+ 631,539
Chittagong	1,611,422	1,508,433	1,353,250	1,290,167	1,132,341	1,127,402	+ 102,989	+ 155,183	+ 63,083	+ 157,826	+ 4,939	+ 484,020
Chittagong Hill Tracts	173,243	153,830	124,762	107,286	101,597	69,607	+ 19,413	+ 29,068	+ 17,476	+ 5,689	+ 31,990	+ 103,636
(2) Bengal States	898,826	822,565	740,299	716,310	693,261	567,827	+ 74,261	+ 82,266	+ 23,989	+ 18,049	+ 130,434	+ 329,099
Cooch Behar	592,489	592,952	566,974	578,868	602,624	532,565	- 463	+ 25,978	- 11,894	- 23,756	+ 70,059	+ 59,924
Tripura State	304,437	229,613	173,325	137,442	95,637	35,262	+ 74,824	+ 56,288	+ 35,883	+ 41,805	+ 60,375	+ 269,175
SIKKIM	81,721	87,920	59,014	30,458	...	...	- 6,199	+ 28,906	+ 28,556	...	...	...
BRITISH SUBJECTS IN FRENCH CHANDERNAGORE.	16,450	9,628	10,998	4,913	853	...	+ 6,822	- 1,371	+ 6,086	+ 4,060	...	...

TABLE II.—Variation in Population since 1872—*concluded.*

District or State.	Males.						Females.					
	1921.	1911.	1901.	1891.	1881.	1872.	1921.	1911.	1901.	1891.	1881.	1872.
1	14	15	16	17	18	19	20	21	22	23	24	25
BENGAL	**24,628,365**	**23,803,331**	**21,881,910**	**20,171,579**	**18,566,943**	**17,408,689**	**22,984,097**	**22,501,839**	**20,999,449**	**19,633,948**	**18,447,678**	**17,278,114**
(1) *British Territory*	**24,151,222**	**23,364,963**	**21,488,033**	**19,797,528**	**18,203,807**	**17,112,042**	**22,544,314**	**22,117,642**	**20,653,027**	**19,291,691**	**18,112,553**	**17,007,134**
BURDWAN DIVISION	**4,100,760**	**4,262,022**	**4,117,045**	**3,800,839**	**3,606,778**	**3,726,573**	**3,949,882**	**4,205,484**	**4,123,216**	**3,888,513**	**3,787,337**	**3,878,261**
Burdwan	732,369	770,324	764,842	682,962	669,545	727,436	706,557	768,047	767,874	709,137	724,894	759,198
Birbhum	422,986	463,935	444,782	389,923	380,482	407,387	424,584	471,730	457,683	408,494	417,710	444,021
Bankura	509,334	562,585	549,484	525,941	537,136	480,339	510,607	576,085	566,927	543,727	534,616	488,258
Midnapore	1,339,652	1,410,714	1,390,233	1,308,074	1,243,195	1,258,169	1,327,008	1,410,487	1,398,881	1,323,392	1,272,370	1,284,751
Hooghly	561,268	555,823	528,179	509,095	470,616	541,159	518,874	534,274	520,962	521,982	504,157	578,238
Howrah	535,151	498,641	439,525	384,844	355,804	312,083	462,252	444,861	410,989	378,781	339,590	323,795
PRESIDENCY DIVISION	**5,089,511**	**5,005,030**	**4,689,522**	**4,388,532**	**4,173,344**	**3,785,127**	**4,371,884**	**4,420,664**	**4,276,554**	**4,116,772**	**4,009,149**	**3,618,192**
24-Parganas	1,430,718	1,305,700	1,092,916	988,862	870,794	803,259	1,197,487	1,128,404	985,443	902,426	819,977	778,189
Calcutta	617,590	607,674	562,596	447,162	393,453	407,742	290,261	268,393	285,200	235,143	218,854	225,267
Nadia	761,345	812,377	822,787	797,274	804,684	724,954	726,227	805,085	835,101	836,784	848,514	767,008
Murshidabad	628,742	678,292	653,346	605,665	586,483	580,165	633,772	693,982	679,838	645,281	640,307	633,939
Jessore	893,593	893,613	906,438	933,509	951,295	710,021	828,627	849,758	891,356	930,294	971,621	729,228
Khulna	757,524	707,374	651,439	616,060	566,635	558,986	695,510	695,042	597,616	557,844	509,876	484,561
RAJSHAHI DIVISION	**5,371,352**	**5,256,785**	**4,828,178**	**4,509,006**	**4,266,368**	**4,069,487**	**4,974,312**	**4,881,517**	**4,545,442**	**4,317,954**	**4,165,224**	**3,975,945**
Rajshahi	767,370	755,206	740,764	718,401	715,363	706,159	722,305	725,381	719,820	719,458	713,670	715,706
Dinajpur	896,400	889,876	823,852	774,269	746,276	740,417	808,953	797,987	742,993	708,086	696,044	689,483
Jalpaiguri	503,397	490,228	422,350	363,769	304,295	215,958	432,472	412,432	363,976	315,854	275,078	200,823
Darjeeling	149,094	142,094	133,005	123,046	89,351	53,199	133,654	123,456	116,112	100,268	66,294	41,797
Rangpur	1,316,840	1,264,717	1,124,991	1,061,724	1,067,527	1,096,610	1,191,014	1,130,613	1,029,124	1,003,525	1,039,026	1,056,451
Bogra	538,727	502,526	436,871	391,169	348,564	323,763	509,879	481,041	416,633	372,405	337,621	317,518
Pabna	706,702	723,591	709,848	677,741	648,258	602,487	682,792	704,995	711,547	684,484	663,391	609,083
Malda	492,823	492,547	436,497	398,887	346,734	330,894	492,843	505,612	445,237	413,874	363,100	346,084
DACCA DIVISION	**6,573,575**	**6,110,846**	**5,457,203**	**4,974,535**	**4,360,843**	**3,789,535**	**6,263,736**	**5,873,681**	**5,303,808**	**4,844,891**	**4,327,617**	**3,790,217**
Dacca	1,572,220	1,441,864	1,277,981	1,156,764	994,500	870,155	1,553,747	1,445,608	1,301,309	1,175,195	1,041,156	909,769
Mymensingh	2,510,450	2,339,603	2,016,393	1,790,106	1,556,531	1,190,360	2,327,280	2,186,819	1,901,709	1,685,060	1,501,791	1,164,434
Faridpur	1,147,742	1,087,051	989,176	925,287	838,130	765,435	1,102,116	1,058,830	986,430	936,502	858,505	794,902
Bakarganj	1,343,163	1,242,328	1,173,653	1,102,378	971,682	963,585	1,280,593	1,182,454	1,114,360	1,048,134	926,165	921,112
CHITTAGONG DIVISION	**3,016,024**	**2,730,280**	**2,396,085**	**2,124,614**	**1,796,474**	**1,741,320**	**2,984,500**	**2,736,296**	**2,406,007**	**2,123,561**	**1,823,226**	**1,744,519**
Tippera	1,406,134	1,277,813	1,116,765	939,637	792,365	737,740	1,336,039	1,223,059	1,064,403	910,315	771,774	709,843
Noakhali	738,722	646,935	569,690	509,543	415,914	426,638	734,064	656,506	573,222	501,197	405,709	414,609
Chittagong	777,882	722,837	641,392	615,868	531,649	536,059	833,540	785,596	711,858	674,299	600,692	591,343
Chittagong Hill Tracts	93,286	82,695	68,238	59,566	56,546	40,883	79,957	71,135	56,524	47,720	45,051	28,724
(2) *Bengal States*	**477,143**	**438,368**	**393,877**	**374,053**	**363,136**	**296,647**	**419,783**	**384,197**	**346,422**	**342,257**	**335,125**	**270,980**
Cooch Behar	315,628	316,548	301,382	302,457	311,678	278,585	276,861	276,404	265,592	276,411	290,946	253,980
Tripura State	161,515	121,820	92,495	71,596	51,458	18,262	142,922	107,793	80,830	65,846	44,179	17,000
SIKKIM	**41,492**	**45,059**	**30,795**	**15,742**	...	...	**40,229**	**42,861**	**28,219**	**14,716**	...	...

TABLE III—RELIGIONS.

DISTRICT OR STATE.	POPULATION.			I.—INDO-ARYAN.																
				HINDU.			BRAHMO.			SIKH.			JAIN.			BUDDIST.				
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total	Males.	Females	Total.	Males.	Females.	Total.	Males.	Females.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
BENGAL	*47,592,462*	*24,628,365*	*22,964,097*	*20,809,148*	*10,858,323*	*9,950,825*	*3,284*	*1,710*	*1,574*	*2,380*	*1,834*	*546*	*13,369*	*9,529*	*3,840*	*275,759*	*140,659*	*135,100*		
(1) *British Territory*	*46,695,536*	*24,151,222*	*22,544,314*	*20,203,527*	*10,536,119*	*9,667,408*	*3,235*	*1,680*	*1,555*	*2,363*	*1,824*	*539*	*12,863*	*9,087*	*3,776*	*265,604*	*135,317*	*130,287*		
BURDWAN DIVISION ...	*8,050,642*	*4,100,760*	*3,949,882*	*6,606,840*	*3,367,184*	*3,239,656*	*377*	*198*	*179*	*375*	*265*	*110*	*647*	*394*	*253*	*162*	*141*	*21*		
Burdwan	1,438,926	732,369	706,557	1,122,251	560,896	552,335	32	18	14	32	29	3	329	203	126	24	24	...		
Birbhum	847,570	422,986	424,584	576,750	287,578	289,172	38	24	14	3	2	1	241	145	96	...	...	...		
Bankura	1,019,941	509,334	510,607	880,429	429,368	441,071	3	2	1	...	...	...	...	...	...	...	...	...		
Midnapore	2,666,660	1,339,652	1,327,008	2,351,870	1,183,637	1,168,233	153	76	77	261	162	99	...	...	...	35	17	18		
Hooghly	1,080,142	561,268	518,874	884,809	460,159	424,650	...	...	...	5	5	...	41	23	18	42	41	1		
Howrah	997,403	535,151	462,252	790,741	426,546	364,196	151	78	73	74	67	7	36	23	13	61	59	2		
PRESIDENCY DIVISION ...	*9,461,395*	*5,089,511*	*4,371,884*	*4,864,403*	*2,649,457*	*2,214,946*	*1,951*	*1,019*	*932*	*1,763*	*1,406*	*357*	*7,226*	*4,806*	*2,420*	*3,668*	*2,958*	*710*		
24-Parganas	2,628,205	1,430,718	1,197,487	1,687,633	924,894	762,739	84	42	42	391	329	62	359	208	151	119	106	13		
Calcutta	907,851	617,590	290,261	643,013	429,955	213,058	1,759	921	838	1,372	1,077	295	5,524	3,917	1,607	3,449	2,775	674		
Nadia	1,487,572	761,345	726,227	581,763	296,023	285,740	61	27	34	...	...	...	88	49	39	10	5	5		
Murshidabad	1,262,514	628,742	633,772	568,790	284,585	284,205	32	17	15	...	...	...	1,247	627	620	11	10	1		
Jessore...	1,722,219	893,592	828,627	656,343	335,486	320,857	15	12	3	...	...	...	5	3	2	50	34	16		
Khulna	1,453,034	757,524	695,510	726,861	378,514	348,347	...	...	...	...	...	...	3	2	1	29	28	1		
RAJSHAHI DIVISION ...	*10,345,664*	*5,371,352*	*4,974,312*	*3,487,125*	*1,844,861*	*1,642,174*	*130*	*66*	*64*	*74*	*52*	*22*	*4,379*	*3,403*	*976*	*58,104*	*29,773*	*28,331*		
Rajshahi	1,489,675	767,370	722,305	318,385	166,885	151,500	11	10	1	5	3	2	229	137	92	12	11	1		
Dinajpur	1,705,353	896,400	808,953	751,861	401,213	350,648	4	3	1	1	1	...	450	332	118	2	2	...		
Jalpaiguri	936,269	503,397	432,872	515,102	280,367	234,735	8	7	1	6	4	2	460	364	96	6,098	3,281	2,817		
Darjeeling	282,748	149,094	133,654	201,316	100,716	94,600	40	11	29	28	17	11	64	56	8	51,969	26,456	25,513		
Rangpur	2,507,854	1,316,840	1,191,014	791,143	425,463	365,680	21	12	9	24	27	7	2,051	1,723	328	18	18	...		
Bogra	1,048,606	538,727	509,879	174,406	93,909	80,557	27	10	17	...	...	...	505	342	163	1	1	...		
Pabna	1,389,494	706,702	682,792	334,332	168,347	165,985	16	10	6	...	...	...	449	348	101	4	4	...		
Malda	985,665	492,822	492,843	400,520	202,051	198,469	3	3	...	...	...	...	171	101	70	...	...	...		
DACCA DIVISION	*12,837,311*	*6,573,575*	*6,263,736*	*3,813,057*	*1,946,960*	*1,866,091*	*528*	*254*	*274*	*78*	*48*	*30*	*599*	*476*	*123*	*10,402*	*5,463*	*4,939*		
Dacca	3,125,967	1,572,220	1,553,747	1,068,942	531,908	537,034	234	105	129	67	37	30	30	24	6	32	31	1		
Mymensingh	4,857,730	2,510,450	2,327,280	1,174,015	620,057	553,958	110	53	57	9	9	...	556	439	117	4	4	...		
Faridpur	2,249,858	1,147,742	1,102,116	815,634	409,206	406,428	68	37	31	...	...	...	9	9	...	3	3	...		
Bakarganj	2,623,756	1,343,163	1,280,593	754,466	385,789	368,677	116	59	57	...	...	...	4	4	...	10,363	5,425	4,938		
CHITTAGONG DIVISION ...	*6,000,524*	*3,016,024*	*2,984,500*	*1,432,108*	*727,567*	*704,541*	*249*	*143*	*106*	*75*	*55*	*20*	*12*	*8*	*4*	*193,268*	*96,982*	*96,286*		
Tippera	2,743,073	1,406,134	1,336,939	707,537	361,550	345,987	123	67	56	...	...	...	8	4	4	1,706	855	851		
Noakhali	1,472,786	738,722	734,064	329,137	168,528	160,609	...	...	...	...	...	...	...	...	...	398	218	180		
Chittagong	1,611,422	777,882	833,540	363,895	180,162	183,733	126	76	50	75	55	20	4	4	...	72,402	33,527	38,875		
Chittagong Hill Tracts ...	173,243	93,286	79,957	31,539	17,327	14,212	...	...	...	...	...	...	...	...	...	118,762	62,382	56,380		
(2) *Bengal States*	*896,926*	*477,143*	*419,783*	*605,621*	*322,204*	*283,417*	*49*	*30*	*19*	*17*	*10*	*7*	*506*	*442*	*64*	*10,155*	*5,342*	*4,813*		
Cooch Behar	592,489	315,628	276,861	397,925	212,626	185,299	32	20	12	1	1	...	497	437	60	8	8	...		
Tripura State	304,437	161,515	142,922	207,696	109,578	98,118	17	10	7	16	9	7	9	5	4	10,147	5,334	4,813		
SIKKIM	*81,721*	*41,492*	*40,229*	*54,535*	*27,647*	*26,888*	...	...	...	...	...	...	*7*	*6*	*1*	*26,788*	*13,628*	*13,160*		
BRITISH SUBJECTS IN FRENCH CHANDERNAGORE.	*14,450*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...		

TABLE III—RELIGIONS—*concluded.*

DISTRICT OR STATE.	II.—IRANIAN.			III.—SEMITIC.									IV.—PRIMITIVE.			V.—MISCELLANEOUS.		
	PARSI.			MUSALMAN.			CHRISTIAN			JEW.			ANIMIST.			MINOR RELIGIONS.		
	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.
	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
BENGAL	*770*	*502*	*268*	*25,486,124*	*13,104,307*	*12,381,817*	*149,069*	*78,914*	*70,155*	*1,851*	*916*	*935*	*849,045*	*430,293*	*418,752*	*1,663*	*1,378*	*285*
(1) *British Territory*	*767*	*500*	*267*	*25,210,802*	*12,957,775*	*12,253,027*	*147,081*	*78,002*	*69,079*	*1,851*	*916*	*935*	*845,780*	*428,624*	*417,156*	*1,663*	*1,378*	*285*
BURDWAN DIVISION ...	*42*	*35*	*7*	*1,082,122*	*552,027*	*530,095*	*15,977*	*8,918*	*7,059*	...	...	...	*344,099*	*171,597*	*172,502*	*1*	*1*	...
Burdwan	2	2	...	266,281	136,518	129,763	4,186	2,292	1,894	...	...	...	45,809	23,387	22,422	...	...	...
Birbhum	...	...	...	212,460	105,881	106,579	468	239	229	...	...	...	57,610	29,117	28,493	...	...	...
Bankura	...	...	...	46,601	24,064	22,537	1,421	748	673	...	...	...	91,477	45,152	46,325	...	...	...
Midnapore	9	9	...	180,672	89,698	90,974	5,838	3,172	2,666	...	...	...	127,822	62,881	64,941	...	...	...
Hooghly	...	...	...	173,633	89,890	83,743	866	579	287	...	...	...	20,745	10,570	10,175	1	1	...
Howrah	31	24	7	202,475	105,976	96,499	3,196	1,888	1,310	...	...	...	626	490	136	...	...	...
PRESIDENCY DIVISION ...	*637*	*402*	*235*	*4,476,741*	*2,372,282*	*2,104,459*	*71,118*	*38,878*	*32,240*	*1,826*	*900*	*926*	*30,405*	*16,030*	*14,375*	*1,657*	*1,373*	*284*
24-Parganas	14	14	...	909,786	488,557	421,229	18,555	10,250	8,305	6	4	2	11,176	6,244	4,932	82	70	12
Calcutta	620	385	235	209,066	154,455	54,611	39,057	21,593	17,444	1,820	896	924	616	313	303	1,575	1,303	272
Nadia	2	2	...	895,190	459,827	435,363	8,533	4,438	4,095	...	...	...	1,925	974	951	...	...	...
Murshidabad	1	1	...	676,257	335,289	340,968	525	254	271	...	...	...	15,651	7,959	7,692	...	...	...
Jessore	...	...	...	1,063,555	556,917	506,638	2,251	1,140	1,111	...	...	...	...	...	...	...	...	...
Khulna	...	...	...	722,887	377,237	345,650	2,217	1,203	1,014	...	...	...	1,037	540	497	...	...	...
RAJSHAHI DIVISION ...	*65*	*50*	*15*	*6,349,689*	*3,264,871*	*3,084,818*	*25,351*	*13,024*	*12,327*	*4*	*3*	*1*	*420,739*	*215,156*	*205,583*	*4*	*3*	*1*
Rajshahi	...	...	...	1,140,256	584,523	555,733	1,000	506	494	3	2	1	29,774	15,293	14,481	...	...	...
Dinajpur	9	7	2	836,805	435,901	400,902	5,009	2,612	2,397	...	...	...	111,214	56,329	54,885	...	...	...
Jalpaiguri	11	6	5	231,683	125,091	106,592	8,726	4,476	4,250	...	...	...	174,175	89,801	84,374	...	...	...
Darjeeling	36	28	8	8,516	5,139	3,377	8,098	4,121	3,977	...	...	...	12,681	6,550	6,131	...	...	...
Rangpur	5	5	...	1,706,177	886,136	821,041	1,114	580	534	...	...	...	7,287	3,873	3,414	4	3	1
Bogra	4	4	...	864,298	439,994	425,004	401	222	179	1	1	...	8,205	4,244	3,959	...	...	...
Pabna	...	...	...	1,055,571	537,435	516,136	455	215	240	...	...	...	667	343	324	...	...	...
Malda	...	...	...	507,685	251,652	256,033	548	292	256	...	...	...	76,758	38,723	38,015	...	...	...
DACCA DIVISION	*14*	*6*	*8*	*8,946,043*	*4,587,046*	*4,358,997*	*31,373*	*15,452*	*15,921*	*4*	*2*	*2*	*35,220*	*17,869*	*17,351*	*1*	*1*	...
Dacca	6	4	2	2,043,246	1,033,824	1,009,422	13,377	6,269	7,108	4	2	2	29	16	13	...	...	...
Mymensingh	2	2	...	3,625,719	1,869,890	1,755,829	4,123	2,142	1,981	...	...	...	35,191	17,853	17,338	1	1	...
Faridpur	6	...	6	1,427,859	735,200	692,659	6,299	3,287	3,012	...	...	...	...	...	...	...	...	...
Bakarganj	...	...	...	1,851,239	948,132	903,107	7,574	3,754	3,820	...	...	...	...	...	...	...	...	...
CHITTAGONG DIVISION ...	*9*	*7*	*2*	*4,356,207*	*2,181,549*	*2,174,658*	*3,262*	*1,730*	*1,532*	*17*	*11*	*6*	*15,317*	*7,972*	*7,345*	...	...	...
Tippera	...	...	...	2,033,242	1,043,397	989,845	457	261	196	...	...	...	...	...	...	...	...	...
Noakhali	...	...	...	1,142,468	569,576	572,892	783	400	383	...	...	...	...	...	...	...	...	...
Chittagong	9	7	2	1,175,205	563,162	610,043	1,361	701	660	17	11	6	328	177	151	...	...	...
Chittagong Hill Tracts ...	...	...	...	7,292	5,414	1,878	661	368	293	...	...	...	14,989	7,795	7,194	...	...	...
(2) *Bengal States*	*3*	*2*	*1*	*275,322*	*146,532*	*128,790*	*1,988*	*912*	*1,076*	...	...	...	*3,265*	*1,669*	*1,596*	...	...	...
Cooch Behar	3	2	1	195,034	101,996	91,038	128	71	57	...	...	...	861	467	394	...	...	...
Tripura States	...	...	...	82,288	44,536	37,752	1,860	841	1,019	...	...	...	2,404	1,202	1,202	...	...	...
SIKKIM	*1*	*1*	...	*20*	*19*	*1*	*370*	*191*	*179*	...	...	...	...	...	...	...	...	...
BRITISH SUBJECTS IN FRENCH CHANDERNAGORE.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Changes in the Administration.

248. During the year there was a change in the Governorship of Bengal. The Right Hon'ble the Earl of Lytton succeeded the Right Hon'ble the Earl of Ronaldshay and took his seat as Governor of Bengal and President in Council on the 28th March 1922.

249. The Hon'ble Sir Henry Wheeler, K.C.S.I., K.C.I.E., resigned his office as a Member of the Bengal Executive Council on the afternoon of the 28th March 1922 and was succeeded by the Hon'ble Mr. H. L. Stephenson, C.S.I., C.I.E. The Hon'ble Sir Bijay Chand Mahtab, K.C.S.I., K.C.I.E., I.O.M., succeeded the Hon'ble Sir Henry Wheeler as Vice-President of the Executive Council.

250. Babu Surendra Nath Ray, Deputy-President, Legislative Council, acted as President of the Legislative Council from the 15th January 1922 in the absence of the Hon'ble Nawab Sir Syed Shamsul Huda, K.C.I.E.

Relations with Tributary States and Frontier Affairs.

COOCH BEHAR.

[Annual Administration Report of the Cooch Behar State for the year 1921-22.]

[*Area 1,307 square miles ; chief produce, rice, jute and tobacco ; population 592,489 ; military force 302 and 4 guns ; annual revenue of the year 1921-22, Rs. 32,61,110 against Rs. 31,69,048 of the previous year ; Ruling Chief, His Highness Maharaja Sir Jitendra Narayan Bhup Bahadur, K.C.S.I. ; family Tibetan or Dravidian origin, residence Cooch Behar.*]

Council.

251. In consequence of the absence on privilege leave of Mr. H.J. Twynam, I.C.S., Vice-President, State Council, Mr. S. Ghosh, Revenue Officer, was appointed a Member of the State Council as Head of the Revenue Department. On Mr. Twynam resuming charge of his duties Mr. Ghosh ceased to be the Head of the Revenue Department, but continues to be a Member of the State Council. On the executive side 25 meetings were held against 28 of the previous year, at all of which the Maharaja presided.

On the judicial side the Council held 35 meetings against 36 of the previous year.

State Railway.

252. The gross earnings of the Cooch Behar State Railway amounted to Rs. 3,06,142, while the working expenses were Rs. 1,40,825. The net earnings were 8·15 on the capital outlay against 8·09 of the previous year.

Finance.

253. The total revenue of the State amounted to Rs. 32,61,110 against Rs. 31,69,048 of the previous year, while the total expenditure amounted to Rs. 31,93,566 against Rs. 35,76,095. The closing balance, inclusive of Government money and deposits, was Rs. 5,92,308 against Rs. 9,02,206 of the previous year. The figure for 1920-21 was shown at Rs. 8,71,830, which was incorrect.

Crops and condition of the people.

254. The outturn of the jute crop was not at all satisfactory owing to the heavy rains. The estimated outturn was about 20 per cent. The price of jute continued low throughout the year and ranged between Rs. 4 and Rs. 9 per maund. The rainfall in October resulted in a bumper harvest of haimanti paddy. The price of common rice was between Rs. 4 and Rs. 9 per maund. Large quantities of mustard seed, wheat and pulses were exported from the State and the import from outside did not counterbalance the export. The price of foodstuffs and other necessaries of life, including wearing apparel, continued high throughout the year and the poorer classes suffered accordingly.

255. The total number of cases reported during the year was 2,640 against 2,528 of the previous year. The percentage of conviction to total number of persons tried was 54·02 against 55·33 of the previous year. The number of persons admitted into jails was 517 against 380 of the previous year. Criminal Justice.

256. The number of subdivisional higher English schools was 4 as in the previous year, and the total number of pupils attending them was 804 against 968 of the previous year. The total number of recognised primary schools was 272. The Victoria College continued to make satisfactory progress. Education.

257. The health of the people was on the whole good, although sporadic cases of small-pox and cholera were reported from the interior. Public Health.

258. Some symptoms of the non-co-operation movement were observed in the State during the year, but were not allowed to develop. The students in the State schools were unaffected by the movement. Non-co-operation movement.

TRIPURA STATE.

[Annual Administration Report of the Tripura State for the year 1921-22.]

[*Area 4,116 square miles; population, 3,04,437; revenue from the State, Rs. 13,78,280; revenue from the zamindaris, Rs. 11,74,910; chief products, rice and cotton; military strength, 302, including officers; present Maharaja, His Highness Maharaja Manikya Birendra Kishor Deb Barman Bahadur, Maharaja of Tripura, aged 39 years; family Indo-Chinese; caste Kshatriya; has male heir; residence, Agartala.*

259. His Highness the Maharaja suffered from a long illness from September to January and was unable to attend to State business until the end of the year. This unfortunate illness deprived His Highness of the pleasure of meeting His Royal Highness the Prince of Wales. In Calcutta the Jubraj Bahadur had the honour of an introduction to His Royal Highness. Illness of the Maharaja.

260. Lieutenant-Colonel Corbett continued as Political Agent to the State till 15th June 1921. Since then the Magistrate of Tippera has been *ex-officio* Political Agent. Political Agent.

261. The total revenue of the State amounted to Rs. 13,78,280 against Rs. 13,20,201 in the previous year and Rs. 11,83,511, the average of the preceding five years. The gross receipts of the State and the attached zamindaris, including deposits and refunds and law charges recovered amounted to Rs. 27,03,666 and the total amount available for expenditure fell from Rs. 38,49,123 to Rs. 37,18,190, owing to the reduction in the opening balance of Rs. 10,09,524, consequent on the adjustment of advances effected in the previous year. Revenue and Finance.

262. The number of cases reported to the police was 1,412 against 1,502 in the year before. The number of persons arrested and sent up was 899 and 823, respectively; of 823 persons sent up, 209 were convicted and 393 were awaiting trial. The percentage of stolen property recovered was 20·56 against 37·88 in the previous year. Protection.

263. The average rainfall of the year was 85·61 inches against 93·22 inches of the previous year and the quinquennial average of 88·00 inches. Satisfactory crops were harvested of paddy, cotton, til, mustard, jute and sugarcane. Weather and crops.

264. Small-pox broke out in some parts of the State but fortunately the death-rate was small. Statistics of malaria show a slight decrease. Public Health.

265. The number of children attending schools in the State increased from 5,064 to 5,576. The Woodburn Artisan School had 28 boys on the rolls against 18 in the previous year. The high English schools were adversely affected by the non-co-operation movement, which spread into the State from the neighbouring British districts. General.

Condition of the People.

[Report on the Land Revenue Administration of Bengal for the year 1921-22.]

Agricultural classes.

266. There was no marked improvement in the condition of the agricultural classes over that of the last year. Though the general outturn of food crops was not so bad as in 1920—in certain districts it was fairly good—the cessation of the rains in October, almost throughout the Presidency, affected the rice crops in the greater part of the Burdwan and Presidency divisions and the *rabi* crops in some parts of the Dacca and Chittagong divisions. The unsatisfactory harvests, coupled with the continued high prices of all other necessaries of life, caused considerable hardship among the poorer classes, especially among people who live on small fixed incomes. The slump in the jute trade told heavily on the cultivators in the jute-growing districts who are almost entirely dependent on the jute crop. There was, however, no sign of wide-spread distress anywhere, save in Khulna, where the failure of the crops for two years in succession, following on the ravages of the cyclone of 1919 necessitated the continuance of relief measures. In the Darjeeling district the continued low price of cardamom proved a source of great disappointment to the people of the hills. Public health statistics show a slight improvement over the previous year, although there were unusually wide-spread outbreaks of cholera in the Dacca and Rajshahi divisions.

Wages and salaries.

267. The wages of all labourers, skilled and unskilled, remained high in spite of the general economic depression. Want of waggons hampered the growth of the coal industry and the fall in the price of hessians reduced considerably the profits of the jute mills. Restriction of output and economy of outlay enabled the tea industry to revive to some extent and partially to wipe out previous losses, but at the same time curtailed the earnings of the tea garden coolies. The high price of imported cloth and the demand for country-made cloth gave an impetus to the weaving industry throughout the province, fly-shuttle looms were introduced in various places and, in some districts in the Dacca and Chittagong divisions, non-weaver classes were reported to have taken to weaving. The increasing unrest and increasing solidarity among industrial labour manifested itself in numerous strikes in factories and collieries in the first part of the year, while the East Indian Railway strike in February caused a temporary dislocation in all trades.

CHAPTER II.—ADMINISTRATION OF THE LAND.

Realization of the Revenue.

[Report on the Land Revenue Administration of Bengal for the year 1921-22.]

Total collections.

268. The total number of estates paying land revenue was 98,847 against 98,674 in the previous year. Of these 92,508 were permanently-settled estates and 3,886 temporarily-settled estates and 2,453 estates under direct management of Government. The current demand of the year amounted to Rs. 2,84,61,490. The increase of Rs. 5,89,286 in the demand over the previous year was due partly to new settlements, resettlements, and progressive increase of demand in temporarily-settled and Government estates and partly to a change in the system of keeping Khas mahal accounts on account of which only a portion of the demand in the estates under the direct management of Government in Midnapore became payable in 1920-21, while the full demand of these estates was accounted for during the year under report. The total realizable demand, including arrears of Rs. 16,18,450, was Rs. 3,00,79,940; out of which the amount collected was Rs. 2,82,91,326; being 94·05 per cent. of the total and 99·4 per cent. of the current demand, as against 94·3 and 100·09 per cent., respectively, in the previous year. A sum of Rs. 1,85,529, though collected within the year, could not be credited to the accounts of the year. The total remissions amounted to Rs. 1,08,431, as against Rs. 1,20,694 in the preceding year.

Collection in (*a*) permanently-settled estates.

269. The total demand of permanently-settled estates amounted to Rs. 2,17,28,138 (Rs. 2,15,71,724 current and Rs. 1,56,414 arrear) of which Rs. 2,15,29,439 or 99·08 per cent. was collected. The current collections amounted to 98 per cent. or more of the current demand in all districts except Chittagong (96·82) and Tippera (94·93).

(*b*) Temporarily-settled estates.

270. Temporarily-settled estates are divided into three sub-classes—

(1) private estates settled with proprietors;
(2) private estates leased to farmers; and
(3) Government estates leased to farmers.

The total collections from these estates amounted to Rs. 18,78,311 or nearly 99 per cent. of the current demand. Of the total balance of Rs. 2,32,298, a sum of Rs. 2,21,360 was reported to be in process of recovery.

(*c*) Estates held direct by Government.

271. The estates held direct by Government comprise two classes—

(1) estates belonging to private proprietors but managed by Government; and
(2) those owned by Government as proprietor.

The total demand of these estates amounted to Rs. 62,30,759 (current Rs. 49,92,449 and arrear Rs. 12,38,310), of which Rs. 48,83,576 or 78;37 per cent. was collected, Rs. 97,598 remitted and Rs. 12,49,585 left unrealized at the close of the year. A sum of Rs. 1,48,384 was collected too late to be credited in the accounts of the year and Rs. 11,59,192 is in process of recovery. The percentage of current collection on current demand was almost the same as in the previous year, being 82·81 against 82·37 of the previous year.

Miscellaneous land revenue.

272. The total collections aggregated Rs. 5,30,823, as against Rs. 6,95,997 in the preceding year. The decrease was mainly due to smaller realizations under the head "Other Receipts," which includes *salami* levied in Government estates. This diminished in Bakarganj as a smaller area

than in the previous year was colonized, and in Jalpaiguri the amount realized in the previous year had been exceptionally large owing to resettlement of a large block of land in the Mech and Garo colony which was opened for tea cultivation.

Changes in the land revenue demand of temporarily-settled estates under direct management.

273. There was a net increase of 36,634 acres in the area of land settled and of Rs. 1,92,486 in revenue.

Redemption of land revenue.

274. The total number of petty estates and holdings, the land revenue of which was redeemed during the year, was 534 against 506 in the preceding year. These were mostly permanently-settled holdings in the Government estates of Calcutta and its suburbs. The total amount of land revenue redeemed was Rs. 1,126 and the price realized aggregated Rs. 33,707 against Rs. 35,213 in the previous year.

Remittance of land revenue and cesses by money orders.

275. The number of special money-orders issued for remittance of land revenue and cesses during the year was 211,063 covering an aggregrate amount of Rs. 20,31,253 against 216,639 and Rs. 20,18,270, respectively, in the preceding year. The remittances exceeded a lakh of rupees in six districts and Rs. 50,000 in ten others. The average value of each money-order was Rs. 9;62.

Coercive measures (a) Sale Laws.

276. There were 14,369 defaults and 1,098 sales during the year under report as compared with 12,466 defaults and 1,097 sales in the preceding year. The price realized by sale was 4·3 times the Government revenue; 197 appeals were filed. In 22 cases sales were annulled by the Commissioners under section 2 of Bengal Act VII of 1868, and in 29 cases by the Board of Revenue under section 26 of Act XI of 1859 as amended by the Decentralization Act, 1914.

(b) Certificate procedure.

277. The total number of certificates (exclusive of those for cesses) filed during the year rose from 57,418 to 68,448. The percentage of certificate cases disposed of to the total number for disposal was 73·7 against 79·2 in the previous year, the number of cases pending at the close of the year being 22,027 as against 15,333 at the end of 1920-21. In the majority of cases payment was made on the issue of notices or on attachment of property and actual sale was necessary in only 2,946 cases or 4·7 per cent. of the total number of cases (61,754) disposed of during the year.

Realisation of Government and other demands by imprisonment.

278. Of the 27 persons committed to civil jails in the enforcement of certificates, 7 were imprisoned for non-payment of Government demands and the remainder for withholding sums due to Court of Wards, Co-operative Societies, etc.

Processes.

279. The total number of processes served during the year was 961,165 against 920,090 in the preceding year. The process fees realized amounted to Rs. 3,69,509 against Rs. 3,45,565 in the preceding year, and the total cost of service, including the pay of supervising establishment debitable to land revenue was Rs. 3,88,097 against Rs. 3,35,973. The cost of the process-serving establishment exceeded the receipts from fees in the district of Burdwan, Birbhum, Bankura, Nadia, Murshidabad, Jessore, Khulna, Mymensingh, Faridpur, Bakarganj, Rajshahi, Dinajpur, Jalpaiguri, Rangpur, Bogra, Pabna, and Darjeeling. The increased cost was due to the revision of the pay of the process-servers and to the grant of *ad interim* allowance to the supervising staff. The system of fines and rewards for good and bad work is reported to have worked well. The system of serving processes by dafadars through president panchayats was in force in the districts of Birbhum, Hooghly, Howrah, Khulna, Jessore, Dacca, Tippera, Rangpur, and in parts of the districts of Burdwan, the 24-Parganas, Murshidabad, Nadia, Faridpur and Noakhali. The system is reported to have worked well in the districts of Burdwan, Birbhum, Hooghly, and in the Lalbagh subdivision of the Murshidabad district. Unsatisfactory results were reported from Howrah, the 24-Parganas, Murshidabad, Jessore, Khulna, Nadia Dacca and Rangpur. It was

also found necessary to discontinue the service of criminal processes by this method in the Munshiganj and Sadar subdivisions of the district of Dacca and the Goalundo subdivision of the district of Faridpur.

OTHER REVENUE WORK.

Land Registration.

280. The total number of proprietary interests entered in the land registration registers of the Presidency was 992,752 at the beginning of the year as against 998,549 at its close. The number of applications for registration of succession to proprietary interests in land by purchase, inheritance, gift or otherwise was 34,263 of which 30,115 were granted before the close of the year. The number of old interests removed and new interests recorded were 33,307 and 39,104, respectively. The number of undisposed of cases at the close of the year was 10,816 of which 399 were pending for more than six months. Difficulties which had risen in connection with the rewriting of land registration registers, on the basis of records-of-rights were cleared up during the year under report and fresh proposals were called for from districts where the records-of-rights have been finally published under the Bengal Tenancy Act.

Partitions.

281. There were 250 cases pending at the close of the preceding year, and 50 cases were instituted during the year under report. Out of the total of 300 cases, 46 cases were disposed of and 254 cases remained pending at the close of the year. Of these, 147 cases are pending for more than two years, mostly in the districts of Tippera (36), Mymensingh (29), Bakarganj (24), and Dacca (14). Special officers were employed during the year exclusively on partition work in Mymensingh, Faridpur, Tippera, Rajshahi, Dinajpur, and Rangpur. Estates Partition funds exist only in the district of Dacca and Mymensingh. The incidence of cost per acre of the area partitioned during the year in the district of Dacca was 7 annas 4 pies.

Land acquisition.

282. During the year, proceedings for the acquisition on behalf of Government, local bodies and companies, of land covering an area of 2,145·6 acres were confirmed at a total cost of Rs. 1,00,34,582, as against an area of 4,255·5 acres at a cost of Rs. 64,33,169, in the preceding year. Of the total expenditure incurred, a sum of Rs. 28,24,523-0-11 was paid for the acquisition of land required for Government, including State railways and company's railways, provided with land free of cost, and Rs. 72,10,058-13-7 for all other purposes, viz., for District Boards, Municipalities, Calcutta Improvement Trust, Calcutta Port Commissioners and Railways and other companies. The average cost per acre of the lands for which acquisition proceedings were confirmed during the year was Rs. 4,676-13-0 against Rs. 1,512 in the preceding year. The increase in the average cost is chiefly due to the fact that proceedings for the acquisition of a large area of valuable land in the town of Calcutta were confirmed during the year.

Loans. (a) Land Improvement Loans Act.

283. The value of loans outstanding at the beginning of the year was Rs. 1,31,100 and loans amounting to Rs. 30,150 were advanced during the year, Rs. 22,000 was advanced to the tenants of the colonization area and the khas mahal tenants in Bakarganj. Of Rs. 1,61,250, the total outstanding principal, Rs. 37,240 was repayable during the year. Out of this, Rs. 35,383 was realized, including Rs. 4,717 collected in advance, while Rs. 58 was remitted. The balance outstanding at the close of the year was Rs. 1,25,809, of which Rs. 6,516 was overdue. Of Rs. 7,761 due on account of interest, current and arrear, the collection during the year amounted to Rs. 8,221, including Rs. 1,534 collected in advance, while Rs. 30 was remitted and a balance of Rs. 1,044 was left unrealized at the close of the year.

(b) Agriculturists Loans Act.

284. The amount advanced during the year under the Agriculturists Loans Act was Rs. 1,25,842. The largest sums were issued in the districts of Khulna (Rs. 48,500) and Bakarganj (Rs. 6,500). The outstanding balance of the previous year was Rs. 15,84,153, making the aggregate amount outstanding Rs. 17,09,995, of which Rs. 15,93,698 was recoverable within the year. The total collections amounted to Rs. 9,41,912, including Rs. 2,500

paid in advance; Rs. 856 was remitted. The balance still recoverable is Rs. 7,67,227 (including Rs. 3,465 held under suspension), of which Rs. 6,53,430 was overdue at the end of the year. The amounts overdue in Burdwan, Birbhum, Bankura, Khulna, Dacca, Mymensingh, Faridpur Tippera, Rangpur, Bogra, and Malda are heavy. Of Rs. 1,48,119 due on account of interest, current and arrear, Rs. 90.945 was collected.

Surveys.

[Report of the Survey Department, Bengal, for the year ending the 30th September 1921.]

Outturn of the year.

285. Traverse survey was completed during the year of a total area of 3,421 square miles. Of this 969 square miles were in Bogra, 832 square miles in Murshidabad, 781 square miles in Birbhum and 839 square miles in Khulna; 623,886 copies of maps were reproduced during the year. Progress was made with the preparation of (4-inch) jurisdiction maps of districts Tippera, Rajshahi, Pabna, Dacca, and Bankura and comparative maps of *diara* areas. Some map production was also done at the request of the Howrah Municipality. Demarcation of the Nadia rivers which started two years ago was completed. The survey of the limits of jurisdiction of the Calcutta High Court was also undertaken, and a normal programme of small scale mapping was disposed of.

Towards the close of the year the traverse survey programme was reduced from a four-party to a two-party basis.

Land Records and Settlements.

[Annual report of the Director of Land Records for the year ending the 30th September 1921.]

General.

286. Cadastral survey and the preparation of a record-of-rights under the supervision of the Director of Land Records were in progress in 17 districts. An area of 2,875 square miles was cadastrally surveyed and records-of-rights were finally published for 2,140 square miles. Out of a total area of about 65,960 square miles in the province to which the Bengal Tenancy Act applies, records-of-rights have been completed in respect of 36,178 square miles.

Major settlements.

287. Major settlement operations were in full swing in 5 districts, viz., Bankura, Jessore, Nadia, Bogra, and Pabna.

Mymensingh.

288. In Mymensingh, Midnapore, Rajshahi, and Tippera-Noakhali, a small amount of case-work under sections 105 and 106 of the Bengal Tenancy Act was pending at the beginning of the year. This was practically completed and all the records have now been made over to the Collectors.

Rajshahi.

289. In Mymensingh and Rajshahi considerable progress was also made with the heavy programme of *diara* resumptions instituted after final publication. In this branch of their operations the hands of the Settlement department have been considerably strengthened by the judgment of the Privy Council in the Damodar case, which has demolished the objections usually raised by landlords to the effect that the original settlement of their estates was made *parganawari*, not *mauzawari*, and that the beds of the best navigable rivers could not be assessed. It is hoped that the recommendations of the Committee which was appointed to consider amendments of the Tenancy Act of 1885 will go a long way to solve some of the most serious difficulties which have arisen in the preparation of records-of-rights in the province.

Bankura.

290. During the year under report the work in Bankura was confined to the Vishnupur subdivision, where climatic unhealthiness retarded the progress of survey. As a result, *bujharat* began very late, and attestation was also to some extent hampered by illness among the staff. Although the area in the programme was 700 square miles, there were 13 lakhs of plots and nearly 6 lakhs of these had to be left over till next season.

291. As a result of four field seasons' work preliminary records and maps have been completed for the whole district of Jessore, with the exception of 13 square miles. At the end of the year the attestation of 632 square miles was pending and the final publication, case-work, and recovery of three blocks. As in Bankura, work in Jessore was hampered by unhealthy climatic conditions. The *diara* proceedings completed on four rivers have resulted in the creation of 49 new estates with an area of four square miles and a revenue demand of Rs. 4,970. Proceedings in respect of the Madhumati river are still in hand. The programme for the revision of land revenue included 41 estates, in 12 of which the proceedings have been confirmed and in the rest final reports are in course of preparation. Jessore.

292. In this, the third field season of the Nadia settlement, maps and preliminary records were prepared for the remaining thanas of the district. The net area comprised in the programme consisted of 790 square miles, with 13 lakhs of plots. *Bujharat* was finished by the end of June. Attestation was completed for 904 square miles involving over 3½ lakhs of interests. Recovery work was delayed by the difficulty of arriving at an equitable system of assessment of the *utbandi* tenancies and landlords' *khas* lands. A very good start was made however and Rs. 1,66,158 was collected before the end of September. Of the 122 estates taken up for revision of land revenue, final reports were submitted for 99 estates and the work is well in hand; 87 *diara* cases were instituted. Nadia.

293. The programme in Bogra comprised 850 square miles but cadastral survey and *khanapuri* were completed for only 737 square miles while *bujharat* of 74 square miles containing 90,000 plots had to be abandoned as amins were scarce at the beginning of the season, fever decimated the staff and many villages in the Sahabarpur area were under water till December. Pabna-Bogra.

294. Minor settlement operations were undertaken in Hooghly, Howrah, 24-Parganas, Dacca, Faridpur, Bakarganj, Tippera, and Darjeeling. Altogether 395 square miles were cadastrally surveyed and final records of 7 square miles were published. Minor operations.

Two private estates in the Presidency enjoyed the privilege of realizing arrears of rent by the certificate procedure under section 158-A of the Bengal Tenancy Act, viz., the Fatehsingh estate belonging to the Nawab Bahadur of Murshidabad and the Mathurapur estate in Malda. In the former the maintenance of records continued to be undertaken by Government agency, but on account of a change of proprietors no work was done in the Mathurapur estate. The introduction of a scheme of maintenance of records in the Mahisadal estate in the Midnapore district was also sanctioned by Government.

295. Out of a total of 79,404 boundary marks, 29,019 or about 36 per cent. were inspected, of which nearly 2 per cent. were found to be damaged and nearly 3 per cent. missing. In Government and temporarily-settled estates 217 marks were restored at a cost of Rs. 478. Boundary marks.

Waste Lands.

[Report on the Land Revenue Administration of Bengal for 1921-22.]

296. Special rules regarding waste lands exist for Chittagong, Darjeeling, Jalpaiguri, and the Sunderbans. No lease of waste lands was granted during the year under report in Darjeeling and Chittagong, while in Jalpaiguri the total area leased was 467 acres with an eventual maximum revenue of Rs. 555, bringing the total area leased to 102,634 acres with an eventual maximum revenue of Rs. 69,263. In Bakarganj, Char Kukri Mukri was divided into seven blocks and permits to reclaim within 4 years were granted to groups of intending colonists. A medical practitioner has been promised 75 bighas of land in one of the blocks of the char on condition that he will keep a stock of medicine in the char from this year. A dispensary will be started as soon as colonists settle there. Char Biswas, Char Madras, Char Baudoba and West Kazir Char which became fit for cultivation during the Waste lands.

year have been settled *raiyatwari*. Of the *bhadralok* colonists who were admitted to Char Fasson last year, about one-third have begun to cultivate the lands with their own cattle and ploughs, but by hired labour.

Government Estates.

[Report on the Land Revenue Administration of Bengal for the year 1921-22.]

Number and management.

297. The total number of estates under direct management including those of private individuals managed by Government was 2,451 with an aggregate annual demand of Rs. 48,71,053 (excluding that of Orphanganj Market, Hastings Estate, and Madhab Babu's Bazar in the 24-Parganas). The percentage of cost of management on the current demand was 9·0. Revised proposals for the reorganization of the Khas Mahal Department in Contai, in Midnapore district, are under the consideration of Government. The scheme for the reorganization of the Tahsil establishment in the remaining khas mahals in Midnapore has been dropped. In the 24-Parganas, Madhab Babu's Bazar with its staff was transferred to the Calcutta University. In Khulna, Boyersingha estate was settled direct with the tenants. The scheme for the reorganization of the khas mahals in Faridpur, which was brought into operation from 1st April 1922, provided for the reduction of circles from 15 to 12 and the appointment of an additional Sub-Deputy Collector to be in charge of five circles in the Madaripur subdivision with headquarters at Kalkini, the remaining circles in the subdivision being placed in charge of the Sadar Khas Mahal Officer, who will also exercise general supervision over all the circles. The main feature of the reorganization of khas mahals in Tippera which was given effect to during the year under report, was to increase the number of circles, excluding Sadar, from 4 to 6, each in charge of a survey-knowing tahsildar. The khas mahal work in the district has been placed in charge of a Sub-Deputy Collector who is directly under the orders of the Collector and is responsible for general direction and management. The scheme is reported to have worked well. The revised scheme for the maintenance of records in Jalpaiguri was dropped on account of financial stringency.

Grants for improvements.

298. Out of the total grant of Rs. 1,48,071 expended on improvements, Rs. 15,179 was spent on tanks and wells, Rs. 63,079 on drainage, embankment, and irrigation, Rs. 4,885 on roads and bridges, and the remainder Rs. 64,928 on miscellaneous items including agricultural experiments and tree-planting.

Colonisation in the Sundarbans.

Bakarganj.

299. The year under report was the fifteenth year of the colonization scheme. During the year eight new colonists were settled on 106 acres of land. Under the system recently introduced, when it is decided to clear an area for colonization, the more valuable wood in it is sold to woodcutters, and then the land is allotted to intending colonists instead of, as formerly, allowing the colonists to clear the jungle and appropriate the wood. Not only is considerable forest revenue thus derived but it becomes easier for the colonists to reclaim the land and to start cultivation. No fresh area was taken up for colonization, as it was necessary to consolidate the areas already colonized; Rs. 20,000 was advanced to the colonists as land improvement loans, Rs. 11,840 on account of land improvement loans, and Rs. 83 on account of agricultural loans were realized during the year.

There were 102 co-operative societies in the colonized area in the beginning of the year under report. Five more societies were affiliated to the Khepupara Central Bank during the year. No new society was formed or registered during this period. Out of the profits of the Central Bank Rs. 500 was allotted for industrial scholarships for the benefit of the boys of the colony. Since last year a veterinary surgeon has been appointed to give free aid to the tenants. He treated 592 cases and the tenants are gradually learning to appreciate his services.

24-Parganas.

300. The colonization work in the 24-Parganas, Sundarbans, which was in charge of a Special Officer, was confined to the resumed estates in Saugor

Island. The difficulty of getting an adequate supply of labour made it impossible to complete the programme of construction works or to spend the whole of the money allotted for the purpose.

Roads.

301. An aggregate sum of Rs. 2,01,322 was spent on roads and communications in or leading to Government estates against the Government grant of Rs. 81,546 representing 1½ per cent. on collections. The excess expenditure was met from the District Board and other local funds.

Education.

302. There were altogether 2,315 schools in Government estates and 73,028 pupils attending them during 1921-22 against the corresponding figures of 2,566 and 79,543, respectively, in the preceding year. The greatest decrease occurred in the districts of Midnapore, Jessore, Chittagong, Bogra, and Darjeeling largely in consequence of the non-co-operation movement. The total expenditure on education in Government estates amounted to Rs. 1,76,716 against the 1 per cent. grant of Rs. 54,823, the excess expenditure being met from local funds.

Sale of estates.

303. During the year 43 plots of Panchannogram *khas khamar* land in the 24-Parganas were sold free of rent on payment of Rs. 44,040, and two plots of land were transferred to the Calcutta Improvement Trust on payment of Rs. 2,099 and Rs. 4,26,000, respectively. In Noakhali, a portion of Government estate bearing tauzi No. 1950, formed out of the relinquished lands of the Assam-Bengal Railway, was sold free of revenue for Rs. 3,095.

Wards' and Attached Estates.

[Report on the administration of Wards' and Attached Estates for the year 1921-22.]

Number of estates.

304. The number of estates under the management of the Court of Wards during the proceeding year was 64 and two new estates were taken charge of during the year.

No estates were released.

Payment of revenue and cesses due to Government.

305. A sum of Rs. 11,37,943 or 99·1 per cent. of the total demand was paid during the year on account of revenue and cesses due to Government against 97·8 per cent. in the previous year.

Rent and cesses due to superior landlords.

306. A sum of Rs. 5,51,723 was paid on account of rent and cesses due to superior landlords and Rs. 4,08,332 remained outstanding at the close of the year. The payment amounted to 83·5 per cent. of the total demand against 79·2 per cent. in the preceding year. The heaviest balances were due from the Nawab family and Bhawal estates in the district of Dacca, the Karatiya estate in Mymensingh, the Dasmina estate in Bakarganj, the estate of Bharat Chandra Saha in the district of Noakhali, and the Tantiband estate in the district of Pabna. The balances were due to non-adjustment of accounts with co-sharer landlords, non-appearance of claimants, refusal of the co-sharers of *ijmali* tenures to join in payment and generally to lack of money.

Collection of rent and cesses.

307. The demand of rent and cesses due to the estates under management during the year was Rs. 1,09,04,745 including an arrear demand of Rs. 65,53,935. Out of this, Rs. 42,48,522 or 38·9 per cent. was collected against 38·8 per cent. in the previous year. The percentage of total collection on current demand declined from 101·2 to 97·6. The standard of 100 per cent. total collection on current demand was exceeded in 41 estates. There was a considerable reduction in the percentage of collection in the Bhawal estate in Dacca, in the Karatiya estate, the Santosh estates in Mymensingh, and the Kasimbazar estate in Tippera. The common reason ascribed for this unsatisfactory result in all these estates is the fall in the price of jute. Collections in the Santosh estates were also affected by the extensive damage done to its lands by the Jamuna and its tributaries, and the poor collections in the Kasimbazar estate are attributed to the damage done to the paddy crop by a flood in May 1921.

Balances of rent and cesses due to estates.

308. A sum of Rs. 59,09,860 representing 135·9 per cent. on the current demand and 54·2 per cent. on the total demand, against the corresponding percentages of 150·3 and 57·6 in the preceding year, remained as outstanding balance due to all the estates at the close of the year.

In the Burdwan division the recoverable balance is still heavy. Garh-Krishnapur is a new estate which has come under the Court of Wards with heavy time-barred arrears. The outstanding balances of the Panihati Wards estate and the Janbazar estate in the Presidency division are still heavy. Almost all the estates in the Dacca division, particularly the Bhawal, Karatiya and Santosh estates are similarly situated. During the year large amounts were remitted by the Nawab family estates, the Bhawal estate and the Santosh estate as irrecoverable balances and enquiries are being made in these estates with a view to further remission of irrecoverable arrears. The Gupta estate and the Kasimbazar estate in the Chittagong division are also badly in arrears. In the Rajshahi division balances were not large except in the Janbazar estate.

Debts estates.

309. Careful attention continued to be paid to the debts of the large number of involved estates under the Court and attempts were made to follow as closely as possible the programmes prepared for the progressive repayment of debts. Short collections and other causes retarded progress in some cases. The total debts of all estates in the Presidency during the year stood at Rs. 33,51,376 against Rs. 34,51,337 in the previous year. The principal repaid or otherwise reduced during the year amounted to Rs. 3,09,461 and a sum of Rs. 1,67,978 was paid as interest. In the Burdwan division a very substantial reduction was made in the debt of the Jhargram estate, repayment being made somewhat in advance of the time table, but the liquidation of the debt of the Basudebpur estate fell short of the scheme provision. In the Dacca division owing to the short collections the schemes of repayment could not be followed in the Karatiya, Sherpur and Golakpur estates in the district of Mymensingh. As the financial condition of the Dasmina estate in Bakarganj is extremely unsound, it is proposed to sell a portion of it and thereby liquidate the debts. Attempts are being made to raise a loan on easy terms for the Gupta estate in the Chittagong division which came under the management of the Court of Wards in 1920 with heavy debts carrying a high rate of interest. In the Rajshahi division the debts of the Karmi estate have been repaid in full since the close of the year.

Management charges.

310. The percentage of cost of management on the current rent and cess demand of estates for the whole Presidency was 15·2 against 3·7 in the previous year. The increase is due mainly to the enhanced rates of pay which have been granted to the employees of the estates in consideration of the increase in the cost of living. The management of the estate of Kalicharan Chatterjee in the Burdwan division has been amalgamated with that of Garh-Krishnapur estate and it is expected that the management cost of the former, which is very high, will now be reduced to some extent. The high percentage of management cost in the Gayhatta estate in the district of Mymensingh is due to the payment of large amounts to the *patwaris* of the estate in adjustment of their old accounts.

Improvements.

311. The standards fixed for minimum expenditure on education and on agricultural and sanitary improvements in solvent estates are 1 and 3 per cent., respectively, of the current rent and cess demand. The total amount expended during the year on all these heads and on other works of improvement by the estates in the whole presidency aggregated Rs. 2,86,331 against Rs. 2,19,352 in the preceding year. The important estates maintain schools and dispensaries of their own and also contribute to other public institutions and some estats bore the expense of agricultural demonstration work carried on among their tenants.

Lady Adviser.

312. Miss Cornelia Sorabji, Lady Adviser to the Court of Wards, performed her duties with her customary zeal and success until she went on leave in March preparatory to retirement. It has been decided that no successor will be appointed in her place.

Education of Wards.

313. The education of wards received careful attention. No ward was sent for training in survey and settlement work during the year.

Revenue and Rent-paying Classes.

[Report on the Land Revenue Administration of Bengal for the year 1921-22.]

Bengal Tenancy Act.

314. The Bengal Tenancy Act is in force throughout the Presidency except the district of Darjeeling, the Chittagong Hill Tracts, and the town of Calcutta.

Relations between landlords and tenants.

315. Relations between landlords and tenants were not satisfactory and were affected materially by the non-co-operation movement and the general economic depression. The tenants have begun to assert their rights and in some places withheld payment not only of illegal dues but also of the legal rent. This was generally the case where the zamindar was slack or oppressive, but relations between good landlords and their tenants as well as those between the tahsildari establishment of Government and the *khas mahal* tenants remained cordial on the whole.

Rent receipts.

316. In 27 cases, proceedings were taken for failure to grant rent receipts under the provisions of the Bengal Tenancy Act and three cases were pending from the preceding year. Of these, nine cases ended in conviction and eight cases were either struck off, rejected or dismissed. Only 13 cases remained pending at the close of the year.

Illegal cesses.

317. Th levy of *abwabs* by the agents of private zamindars, whether for their own or their masters' benefit, continued as before. As a rule, when the levy is sanctioned by long usage and is not excessive, it is paid without demur and as in previous years the provisions of section 75, Bengal Tenancy Act, remained unused; no suit was brought against any landlord to recover the amount of *abwab* exacted. There are, however, signs that this state of things may not continue long. The settlement operations have been teaching the tenants that these exactions are illegal, and although this knowledge of itself has not yet led them to refuse payment, a comparatively small emotional reinforcement will probably produce wide-spread revolt. Reports from all the divisions, except Burdwan, show that there are numerous symptoms of anti-landlord feeling amongst the tenants which are making it more difficult for them to collect their *abwabs* and in some cases even their legitimate rents.

CHAPTER III.—PROTECTION.

Legislative Authorities.

318. Since 1910 the local legislative authority in Bengal has been known as the Bengal Legislative Council. Prior to that date the local legislature was known as the Legislative Council of the Lieutenant-Governor of Bengal.

Constitution in 1862 and 1893.

319. The Legislative Council of the Lieutenant-Governor of Bengal came into existence in 1862 under a proclamation of the Governor-General of India in Council in exercise of powers conferred by section 44 of the Indian Councils Act, 1861.

This proclamation was published in the *Calcutta Gazette* of the 17th January 1862. It took effect from the 18th January 1862, and the first meeting of the Council was held on the 1st February of that year.

The Council at first consisted of 12 members nominated by the Lieutenant-Governor with the sanction of the Governor-General. The Lieutenant-Governor himself was the President of the Council. The Indian Councils Act, 1892, empowered the Governor-General in Council to increase the number of members up to a maximum of 20, all being nominated as before by the Lieutenant-Governor with the sanction of the Governor-General. By regulations made under this Act, it was provided, however, that nominations to 7 seats out of 20 should be made on the recommendations of different public and local bodies in Bengal, such as the Corporation of Calcutta, the Senate of the Calcutta University, groups of Municipal Corporations in the mufassal, groups of District Boards, groups of Mercantile Associations and groups of Landholders' Associations as the Lieutenant-Governor might prescribe. The regulations further provided that not more than 10 out of the 20 members should be officials and that the Lieutenant-Governor might, at his discretion, nominate persons to the remaining seats so as to secure a fair representation of the different classes of the community.

Constitution in 1910.

320. The Indian Councils Act, 1909, provided for the increase to 50 of the number of members (other than *ex-officio* members), and it was provided by the regulations made under this Act that not more than 22 members should be nominated, of whom not more than 17 might be officials and 2 should be non-officials, to be elected one from the Indian commercial community and one from the planting community. Provision was also made for the nomination of two persons, whether officials or non-officials, having expert knowledge of subjects connected with proposed or pending legislation. The remaining 26 seats were to be filled up by election and were distributed as follows :—

	Members.
Corporation of Calcutta	1
University of Calcutta	1
Municipal Corporations	6
District Boards	6
Landholders	5
Muhammadan Community	4
Bengal Chamber of Commerce	2
Calcutta Trades Association	1

The Act of 1909, for the first time, introduced the principle of direct election. The official majority in the Council ceased to exist and the Act empowered members to move resolutions upon matters of general public interest, also upon the annual Financial Statement and to ask supplementary questions. Rules were framed for the asking of questions and the moving of resolutions.

The Lieutenant-Governor (and subsequently the Governor) continued to be the President. The Act also provided for the appointment of a Vice-President by the head of the province. The three members of the Bengal Executive Council (appointed under the provisions of this Act) were made *ex-officio* members of the Legislative Council.

Constitution in 1921.

On the 1st April 1912 the new Presidency of Fort William in Bengal under a Governor in Council came into being by the passing of the Government of India Act, 1912 (2 and 3, Geo. 5,c. 6). The changes made by this Act were chiefly administrative, the principal effect being that "the Legislative Council of the Lieutenant-Governor of Bengal" ceased to exist and was replaced by the "Bengal Legislative Council."

On the 20th of August 1917, His Majesty's Government declared, in Parliament, the goal of the British Policy in India to be "the gradual development of self-governing institutions with a view to the progressive realization of responsible self-government of India as an integral part of the British Empire." In order to give effect to that policy the Government of India Act, 1919, was passed.

The most important features of the Act on its legislative side in relation to the provinces are the extension of the franchise and the enlargement of the Legislative Councils. "Prior to this" (*i.e.*, the enactment of the Government of India Act,1919), observed His Excellency Lord Ronaldshay in the course of his speech at the inauguration of the reformed Legislative Council, "the members of the Legislature have been nominated thereto or elected by strictly circumscribed electorates. Generally speaking, the vote has been the prerogative of a limited number of persons enjoyed by reasons of the special position which they occupied, such as membership of a municipal or district board or of a special association such as a Chamber of Commerce or the University Senate, or of a special community, such as the great landholders of the Presidency. With such elections the mass of the people have had no concern. And the total number of electors of all classes who have had any share in returning members to the Legislative Council of the past has not exceeded 12,000. As compared with this, the persons entitled to return members to the Legislative Council which meets for the first time to-day, number approximately one million and twenty thousand—a sufficiently dramatic indication of the extent to which power has been conferred upon the people. Equally significant is the revolution wrought in the composition and character of the Council itself. The former Council consisted of 53 members; the present Council of 139. Of the former body 28 members only or a bare majority were elected; of the total of the present body 113 or 81 per cent. Of the former body a little over one-third were officials; of the present body 13 per cent. only."

Franchise qualification.

321. Under the Act, the minimum qualification of an elector in the rural areas is the annual payment of cess of not less than one rupee and in the urban areas the annual payment of taxes of not less than a rupee and a half. No " official " may stand for election.

Distribution of Seats.

322. Of the 113 seats to be filled by election 46 have been assigned under the Bengal Electoral Rules to non-Muhammadans; 39 to Muhammadans and 28 have been distributed among the following special electorates:—

	Seats.
Landholders	5
Calcutta University	1
European Community	5
European Commerce	11
Anglo-Indian Community	2
Indian Commerce	4

Of the 26 nominated members, the Act provided that not more than 20 should be officials (including the *ex-officio* members), two should represent labour, one the Indian-Christian community and one the depressed classes. Provision has also been made for not more than two expert members.

The aggregate number of members, however, may be increased by rule provided that the proportion of the different classes of members is maintained.

Under the provisions of the new Act, the Governor is not a member of the Council nor does he preside over its deliberations. But he has the right of addressing the Council and may for that purpose require the attendance of its members. The appointment and (after the first four years) the election of the President of the Council is provided for in the Act as well as the election of a Deputy-President. At the commencement of every session the President is empowered by the rules framed under the Act to nominate from amongst the members of the Council a panel of not more than four Chairmen any one of whom may preside over the Council in the absence of the President and Deputy-President.

Duration of the Council.

323. The life of a Council is generally of three years' duration. But the Governor has power to dissolve the Council sooner or to extend the period up to a limit of four years in special circumstances. After a dissolution not more than six months must ordinarily elapse before the next session of the Council. The Governor appoints times and places for holding the sessions of the Council and prorogues the Council either personally or by notification.

Legislative Powers.

324. The legislative authority of the Council extends to the whole Presidency of Bengal administered by the Governor. The Act of 1861 gave the Council the power to make laws for the peace and good government of these territories and for that purpose to repeal and amend any laws and regulations made before the 1st August 1861 by any authority in India. But the Council could not make laws which would in any way affect any Act of Parliament. The Act of 1892 removed the implied prohibition to repeal or amend laws made by other authorities in India after the 1st August 1861, and authorized the local legislature to make such repeals and amendments with the previous sanction of the Governor-General. It was also provided in the Act of 1861 that the local legislature should not, without the previous sanction of the Governor-General, make or take into consideration any laws for any of the following purposes, namely :—

(*i*) affecting the public debt of India, or the customs duties, or any other tax or duty imposed by the authority of the Government of India for the general purposes of such Government;

(*ii*) regulating any of the current coin, or the issue of any bills, notes or other paper currency;

(*iii*) regulating the conveyance of letters by the post office or messages by the electric telegraph;

(*iv*) altering in any way the Penal Code of India, as established by Act of the Governor-General in Council (Act XLV of 1860);

(*v*) affecting the religion or religious rites and usages of any class of His Majesty's subjects in India;

(*vi*) affecting the discipline or maintenance of any part of His Majesty's military or naval forces;

(*vii*) regulating patents or copyrights; or

(*viii*) affecting the relations of the Government with foreign Princes or States.

The powers of the Bengal Legislative Council as constituted under the Act of 1919 regarding the making of laws are set forth in section 80A of the Government of India Act which runs as follows :—

"80A. (1) The Local Legislature of any province has power, subject to the provisions of this Act, to make laws for the peace and good government of the territories for the time being constituting that province.

(*2*) The local legislature of any province may, subject to the provisions of the sub-section next following, repeal or alter as to that province any law made either before or after the commencement of this Act by any authority in British India other than that local legislature.

(3) The local legislature of any province may not, without the previous sanction of the Governor-General, make or take into consideration any law—

(a) imposing or authorizing the imposition of any new tax, unless the tax is a tax scheduled as exempted from this provision by rules made under this Act; or

(b) affecting the public debt of India, or the customs duties, or any other tax or duty for the time being in force and imposed by the authority of the Governor-General in Council for the general purposes of the Government of India, provided that the imposition or alteration of a tax scheduled as aforesaid shall not be deemed to affect any such tax or duty; or

(c) affecting the discipline or maintenance of any part of His Majesty's naval, military or air forces; or

(d) affecting the relations of the Government with foreign Princes or States; or

(e) regulating any central subject; or

(f) regulating any provincial subject which has been declared by rules under this Act to be, either in whole or in part, subject to legislation by the Indian legislature, in respect of any matter to which such declaration applies; or

(g) affecting any power expressly reserved to the Governor-General in Council by any law for the time being in force; or

(h) altering or repealing the provisions of any law which, having been made before the commencement of the Government of India Act, 1919, by any authority in British India other than that local legislature, is declared by rules under this Act to be a law which cannot be repealed or altered by the local legislature without previous sanction; or

(i) altering or repealing any provision of an Act of the Indian legislature made after the commencement of the Government of India Act, 1919, which by the provisions of such first-mentioned Act may not be repealed or altered by the local legislature without previous sanction:

Provided that an Act or a provision of an Act made by a local legislature, and subsequently assented to by the Governor-General in pursuance of this Act, shall not be deemed invalid by reason only of its requiring the previous sanction of the Governor-General under this Act.

(4) The local legislature of any province has not power to make any law affecting any Act of Parliament."

Procedure as to Bills.

325. The Government of India Act provides that where any Bill has been introduced or is proposed to be introduced, or any amendment to a Bill is moved or proposed to be moved, the Governor may certify that the Bill, or any clause of it, or the amendment, affects the safety and tranquility of his province or any part of it or of another province, and may direct that no proceedings or no further proceedings shall be taken by the Council in relation to the Bill, clause or amendment. The Act also provides for the certification by the Governor of a Bill relating to a reserved subject which the Council has refused leave to introduce or has failed to pass in a form recommended by the Governor. After such certification the Bill in its original form becomes an Act of the legislature and has the force and effect of an Act after notification by the Governor-General of the signification of the assent of His Majesty in Council. Such an Act is to be laid before each House of Parliament as soon as practicable after being made, and an Act which is to be so presented for His Majesty's assent is not to be presented until copies thereof have been laid before each House of Parliament for not less than eight days on which that House has sat.

A Bill, after being passed by the Legislative Council, does not become an Act until assented to by the Governor, and the Act has no validity until the Governor-General has assented thereto and that assent has been signified by the Governor-General and published by the Governor.

The Governor has power under the Act to withhold his assent to a Bill passed by the legislature, and also to return a Bill to the Council for reconsideration either in whole or in part together with any amendments which he may recommend. He may also, in certain cases, reserve a Bill for the consideration of the Governor-General. In such cases the Governor may, at any time within six months of the reservation of the Bill, with the Governor-General's consent, return the Bill for further consideration by the Council. In any other case, if the Governor-General assents to a Bill within six months from the date of its reservation, it becomes law on due publication of such assent in the same way as a Bill assented to by the Governor. If the Governor-General does not give his assent within 6 months, the Bill ordinarily lapses.

The Governor-General may (except where the Bill has been reserved for his consideration), instead of assenting to, or withholding his assent from any Act passed by the local legislature, reserve the Act for the signification of His Majesty's pleasure thereon, and in such case the Act has no validity until His Majesty in Council has signified his assent and such assent has been notified by the Governor-General.

When an Act has been assented to by the Governor-General, he sends an authentic copy thereof to the Secretary of State and it is lawful for His Majesty in Council to signify his disallowance of the Act. In that case the Act becomes void.

Budget Procedure.

326. The Act of 1919 provides that the estimated annual expenditure and revenue of the province shall be laid in the form of a statement before the Council in each year and that the proposals of the Local Government for the appropriation of provincial revenues and other moneys in any year shall be submitted to the vote of the Council in the form of demands for grants. The Council may assent or refuse its assent to a demand, or may reduce the amount therein referred to, either by a reduction of the whole grant, or by the omission or reduction of any of the items of expenditure of which the grant is composed. The Governor, however, has the power of restoring any grant relating to a reserved subject which the Council has refused or reduced if in his opinion the demand is essential to the discharge of his responsibility for the subject. In certain cases of emergency also the Governor has the power to authorize expenditure without putting the same to the vote of the Council. But no proposals for appropriation of the public revenues can be made except upon the recommendation of the Governor communicated to the Council.

Proposals for expenditure under the following heads, however, need not be submitted to the vote of the Council :—

(*i*) contributions payable by the local Government to the Governor-General in Council;
(*ii*) interest and sinking fund charges on loans;
(*iii*) expenditure of which the amount is prescribed by or under the law;
(*iv*) salaries and pensions of persons appointed by or with the approval of His Majesty or by the Secretary of State in Council; and
(*v*) salaries of judges of the High Court of the province and of the Advocate General.

Rules and Standing Orders.

327. The Act empowers the Governor-General with the sanction of the Secretary of State in Council to frame rules and the Governor in Council to frame Standing Orders for the conduct of all business in the Council. Rules so made may not be altered by the Indian Legislature or the Local Legislature but Standing Orders may be amended by the Local Legislature with the approval of the Governor. The first set of Rules and Standing Orders made under the provisions of the Act was published on the 24th September 1920. Among other things, the Rules provide for the language of the Council which is English, but a member who is not fluent in English may speak in any recognized vernacular of the province; the allotment of time for Government as well as for non-official business; subject matters of questions and resolutions (which are practically the same as those prescribed in 1909);

motions for closure in order to shorten debates and motions for adjournment of the Council for purposes of discussing matters of urgent public importance. They also lay down the procedure for Budget discussions and the voting of demands for grants; for the election of a committee on public accounts, for the amendment of Standing Orders and for communication between the Governor and the Council and for various other matters.

Rules have also been framed under the Act for defining the term "non-official." The holder of any office in the civil or military service of the Crown is an official unless the office is one which does not involve both of the following incidents, namely that the incumbent—

(*i*) is a whole-time servant of Government; and
(*ii*) is remunerated either by salary or fees.

The position of Ministers is dealt with in the Government of India Act itself.

Freedom of speech in the Council is provided for in the Act, subject to the Rules and Standing Orders.

The first meeting of the new Council was held on the 1st February 1921, when the Council was opened by His Royal Highness the Duke of Connaught with imposing ceremony. In the year 1921, 1,293 questions were asked and out of 505 resolutions sent in 157 were actually discussed. The Council met on 60 days during 1921, the first President being the Hon'ble Nawab Sir Syed Shams-ul-Huda, K.C.I.E., and the first Deputy-President, Babu Surendra Nath Roy, M.L.C. They held office throughout the year. The legislation dealt with in the year is set forth in the sections that follow.

Course of Legislation.

328. Seven Acts were passed by the Bengal Legislative Council during the year 1921-22 as follows:— **Acts passed**

(1) *Bengal Act II of 1921* [*The Bengal Land Registration (Amendment) Act, 1921*].—Section 70 of the Land Registration Act, 1876 (Bengal Act VII of 1876), provided for the levy of a uniform fee of Rs. 2 on all applications made to the Collector for opening separate accounts. This fee of Rs. 2, although sufficient to cover the cost of opening a separate account did not cover the cost of its subsequent administration. The amending Act provides for the levy on the applicants for whose benefits the separate accounts were maintained, of an additional fee for the upkeep of the extra establishment in the collectorate necessitated by the administration of separate accounts.

(2) *Bengal Act III of 1921* [*The Bengal Primary Education (Amendment) Act, 1921*].—The passing of the Bengal Village Self-Government Act, 1919 (Bengal Act V of 1919), necessitated some changes being made in the Bengal Primary Education Act, 1919 (Bengal Act IV of 1919). Provision has been made to bring village unions and union boards constituted under the former Act within the purview of the latter Act.

(3) *Bengal Act I of 1922* [*The Calcutta Improvement (Amendment) Act, 1922*].—The object of this Act is to amend the Calcutta Improvement Act, 1911, in order to award a solatium of 15 per cent. on the market value of land acquired for the Improvement Trust in lieu of costs and thus bring it into line with the Land Acquisition Act of 1894.

(4) *Bengal Act II of 1922* [*The Bengal Children's Act, 1922*].—The object of this Act is to provide for the custody, trial, and punishment of youthful offenders and for the protection of children and young persons. It provides that no child or young person shall be sentenced to death, transportation or imprisonment for any offence, except that certain depraved children may be imprisoned if the Court certifies that they cannot suitably be

dealt with otherwise. Generally speaking it substitutes educational treatment for penal measures in the case of children and young persons convicted of an offence.

Provision has been made for the establishment of reformatory and industrial schools and auxiliary homes and for the inspection of institutions for poor children.

Provision has also been made for the trial of youthful offenders in Juvenile Courts.

Power is given to bring in children found in a destitute condition or in certain circumstances such as begging, or with criminal or drunken parents, or frequenting the company of thieves and prostitutes, and to send such children to industrial schools.

Power is also given to commit children or young persons to suitable custody.

The Act also provides penalties for cruelty to children.

The following three fiscal Acts were passed in 1922 to meet the deficit in the revenues of Bengal:—

(*i*) *Bengal Act III of 1922* [*The Bengal Stamp (Amendment) Act, 1922*] for increasing rates of Stamp duties;

(*ii*) *Bengal Act IV of 1922* [*The Bengal Court-fees (Amendment) Act, 1922*] for increasing the rates of Court-fees; and

(*iii*) *Bengal Act V of 1922* [*The Bengal Amusements Tax Act, 1922*] for imposing taxes on certain forms of amusements including betting on horse-racing.

Bills pending.

(1) The Calcutta Municipal Bill, 1921, to amend and consolidate the law relating to the municipal affairs of the city of Calcutta and its suburbs was introduced at the meeting of the Bengal Legislative Council on the 22nd November 1921, published in the *Calcutta Gazette*, and was circulated for eliciting opinions during the course of the year under review.

(2) The Bengal Village Chaukidari (Amendment) Bill, 1922, to amend the Village Chaukidari Act of 1870 in order to remove certain legal restrictions as regards the salaries of the chaukidars, and the amount to be assessed on the villagers was introduced on the 2nd March 1922 and subsequently published in the *Calcutta Gazette*, and circulated for eliciting opinions on its provisions.

(3) Shah Syed Emdadul Haq, a non-official member of the Bengal Legislative Council, introduced a Bill to amend the Bengal Muhammadan Marriages and Divorces Registration Act, 1876.

Bills withdrawn or rejected

(1) On the 4th July 1921, Maulvi Yakinuddin Ahmed, a non-official member of the Bengal Legislative Council, moved for leave to introduce a Bill to further amend the Bengal Tenancy Act of 1885, but the motion was rejected by a majority of the votes of the Council.

(2) The Bengal Aerial Ropeways Bill, 1921, to authorise, facilitate and regulate the construction of aerial ropeways in Bengal, was introduced in Council on the 21st November 1921, by the Minister in charge of the Department of Public Works. This Bill was referred to a Select Committee on the 19th January 1922. The report which was presented on the 2nd March 1922 recommended that the Bill should be withdrawn on the ground that it was restricted unnecessarily to aerial ropeways for the public carriage of persons and goods and that it should be extended to private companies. This change involved considerable alterations in the original Bill and the Council agreed to its withdrawal.

Bengal Police.

[The Report on the Police Administration in the Bengal Presidency for the year 1921.]

Military Police.

329. The strength of the military police remained unchanged, but its disposition was altered, the detachment located at Chinsura being strengthened by one Indian officer and 56 men transferred from the headquarters force at Dacca. Two officers of the Indian Army relieved two police officers as

Assistant Commandants, and the battalion has now its full complement of officers. Its services were invaluable during the periods of industrial and political unrest when disturbances were threatened or took place; officers and men performed their duties with cheerfulness, efficiency and restraint.

Administration.

330. A revised time-scale of pay was sanctioned for officers of the Imperial Police Service, and effect was given to the enhanced rates of pay granted to Deputy Superintendents and Inspectors. The strength of the subordinate police force was increased by 46 officers and 312 men, chiefly on account of the reorganization of the town police of Hooghly district and the strengthening of the emergency force at Asansol. In addition to these two industrial tracts it was intended to strengthen the force in the urban areas of the 24-Parganas district by introducing part of the reorganization scheme sanctioned some years before and funds were voted for the purpose. But later in the year the financial position rendered it necessary to keep this important improvement once more in abeyance. For similar reasons it was not possible to provide an adequate reserve of force at the industrial centres of Howrah and Serampore, or to supply sufficient motor transport to add to the mobility of the police forces in the thickly populated localities on both banks of the Hooghly. The improved conditions of service effected in the previous year have had a salutary effect on the recruitment of the subordinate ranks: vacancies due to resignations among constables were considerably fewer than in preceding years. The proportion of Bengali recruits, however, fell from 65·1 to 47·1 per cent. The want of family quarters for constables rendered the service less attractive for the best type of local men. But the post of assistant sub-inspector was much sought after, and recruits with good educational qualifications were obtained.

Discipline.

331. Discipline was on the whole well maintained. With a few exceptions all ranks behaved with exemplary loyalty under most trying circumstances at a time when adverse economic conditions, industrial unrest and other causes added to the difficulties of police work. There was a decrease in the number of complaints and civil suits brought against the police by the members of the public, and the number of those judicially punished fell from 328 to 247. In no case was an unfavourable comment of police action made by the High Court or any Court of Sessions. At the same time the number of those rewarded for good work increasd from 6,316 to 6,468.

Health.

332. The health of the force was slightly better than in previous years, but still not satisfactory, malarial fever being responsible for most of the illness. The sick rate was also attributed to deficient equipment and unsuitable buildings. After the close of the year it was possible to allot limited funds for the purchase of mosquito-nets, bed cots and waterproofs for a small proportion of the staff, but a rapid improvement of the conditions which adversely affect the health of the force would not be effected in the present state of provincial finances.

River Police.

333. The river police system has been in recent years modified in the light of experience gained. In the big rivers of the Ganges division (opened in 1917) and the Brahmaputra division adequate patrol could not be undertaken without larger launches with search-lights. But as serious crime was not prevalent in these localities, river patrols were not essential. For this reason and also as a measure of economy, the floating craft together with the personnel of these two divisions were brought to headquarters towards the end of the year. Proposals to redistribute the river police jurisdictions and to give effect to the long-contemplated scheme of including the Khulna waterways, where the prevention of riverine crime is necessary, are now under consideration. In areas where practically the only means of communication are by water, crime cannot be controlled except by a mobile river police. In the case of a patrol post whose removal was contemplated, the inhabitants protested against being deprived of its protection. The river police launches were of great service during the strike of steamer employees in Eastern Bengal in carrying Government officers and the mails; while the officers and men effected the rescue of 81 persons from drowning and saved 32 boats. Another feature of the year's work was the equipment of the river police dockyard at Narayanganj with extra machinery, thus enabling repairs

to be carried out at less expense than before, while another measure of economy was the return of two hired launches to their owners.

Village Police.

334. A feature of the year's administration was the effort made, especially towards the end of the year, in almost all districts by the supporters of the non-co-operation movement to disorganize the chaukidari system. The police were as a result deprived of considerable assistance in checking crime, but only in a few districts was any success achieved in inducing panchayats and chaukidars to resign and villagers to withhold payment of taxes. District officers and their staff as well as police officers, by personal efforts and otherwise, kept the threatened dislocation from attaining widespread dimensions. Measures taken locally, including the quartering of additional police at the expense of the inhabitants in some of the worst localities, were effective enough to bring back conditions almost to normal. Complaints were again made of the inadequacy of the chaukidar's pay. Fewer chaukidars were punished and rewarded during the year; the closing balance of the reward fund was somewhat reduced, but the balances in several districts were still high, and there is scope for the more adequate recognition of good work.

Crime.

335. The total volume of reported crime was less than in the previous year, but against the decline in the number of burglaries, thefts, and less serious offences the figures for riots, dacoities, and robberies exceeded the average of the last five years. It is indeed not certain that there was a real decrease in breaches of the law, for under the influence of the non-co-operation movement in several districts offences were not always brought to the notice of the authorities, while aggrieved persons were often induced or compelled to have resort to "arbitration courts." Such offences, however, related to minor infractions of the law, the real effect of this movement was reflected in the prevalence of the more violent forms of crime. As to riots, while the number was swelled by the activities of the Khilafat volunteers, strikers, and others, influenced by the prevailing atmosphere of disobedience to law, the majority were as usual the outcome of agrarian quarrels. The practice of serving warning notices on the owners and occupiers of land in dispute was often adopted with successful results, but its utility was overlooked in a number of districts.

The number of true cases of dacoity was 716 against 576, the average of the last five years, the corresponding figures for robberies being 389 and 345. Over 64 per cent. of the dacoities took place in the Burdwan and Rajshahi Division, the highest figures being recorded in the districts of Midnapore and Rangpur, where the non-co-operation movement attained considerable prominence. Various causes contributed to the increase, *e.g.*, economic distress, which stirred local gangs into greater activity; the influx of foreigners, such as colliery workers from up-country to Asansol, and Nepalese into Darjeeling. One particular factor which led to an extensive outbreak of crime in the Rajshahi Division was the escape of a large number of convicts from Rajshahi Jail in March; some of the worst of these eluded capture, organized gangs and committed dacoities and other crimes throughout the neighbouring districts. These gangs were rounded up, and several escaped convicts were reimprisoned. In dealing with outbreaks of crime, the police laboured under a serious handicap. The dislocation of the rural police, caused by the attacks of the non-co-operation movement on the chaukidari administration in several districts, deprived the police of much local information which would have helped in the prevention and detection of crime. The regular police, whose attention was distracted by the activities of volunteers and others pursuing a campaign of intimidation and boycott and preaching sedition, were unable to devote all their energies to measures of surveillance and investigation. And even where action was sought to be taken against criminals, the villagers, coerced or corrupted by the non-co-operation propaganda, were often unwilling to give information or evidence that would bring the offenders to justice. Consequently the number of cases of dacoity in which a conviction was obtained fell from 91 last year to 76, while preventive measures under section 110 of the Code of Criminal Procedure were taken against only 3,529 persons, 779 fewer than in 1920. The difficulties of the police continued into the current year, but the action taken to vindicate

authority together with specific police measures by way of special patrols and the establishment of detective staffs, in order to deal with criminal gangs, resulted in a considerable improvement. The Criminal Investigation Department gave valuable assistance in the suppression of professional and organized crime, especially in dealing with dacoities in the Rajshahi Division. Volunteer defence parties are still few in number, and in most districts were reported to be apathetic, but in Hooghly and Murshidabad they gave great assistance to the police, arresting offenders who were subsequently convicted. Only two crimes, one dacoity and one robbery, were believed to have been committed during the year by members of the old revolutionary party, but no political significance was attached to them, the motive apparently being personal gain. The staff of the central and district intelligence branches were further reduced; they rendered good service in combating the lawless and seditious activities that developed in the course of the year.

Expenditure.

The expenditure of the department in round figures amounted to rupees one crore and forty-seven lakhs, the increase over last year being about fifteen lakhs; most of this increase was on account of the enhanced pay of the staff. Progress in building construction was again slow on account of paucity of funds, the amount spent being Rs. 17 lakhs as in the previous year. The financial stringency limited considerably the improvement and expansion of the department, and many important reforms had to be kept in abeyance. The replacement of dilapidated and unhealthy buildings by new ones, and the provision of quarters where none exist was recognised as a pressing need. A portion of the loan which Government proposes to raise will be allotted to this department, and it is hoped that the most urgent requirements will be met in this way in the next few years.

The year's work.

336. The disruptive tendencies at work during the year 1921 imposed an unprecedented test on the whole police staff. The non-co-operation and Khilafat movements developed in the closing months of the year into a campaign of open lawlessness, and industrial unrest, fanned by political agitators, added to the anxieties of those charged with the maintenance of law and order. But the exacting duties that fell to the lot of the police were cheerfully undertaken, and in spite of provocation, efforts to boycott and attempts to tamper with their allegiance, all ranks behaved with courage and loyalty and rendered sterling service.

Mortality caused by Wild Animals and Snakes.

[Report on the above and measures taken for the destruction of wild animals and snakes during 1921. Statistics of British India, Part V—Area, Population and Public Health.]

Wild animals.

337. The number of persons killed by wild animals fell from 418 in 1920 to 271 in 1921. There was a small increase in the number of deaths caused by leopards, the number being 47 as against 45 in 1920.

Elephants were responsible for 8 deaths, tigers for 46, bears for 3, and wolves for 2.

Snakes.

338. The number of persons who died from snake-bite rose from 4,040 in 1920 to 4,165 in 1921. The increase occurred in the Presidency, Dacca, Rajshahi, and Chittagong Divisions.

Destruction of wild animals.

339. The number of wild animals killed was 503. Rewards paid for the destruction of wild animals and snakes totalled Rs. 7,889 and Rs. 123, respectively.

Police Administration in Calcutta.

[Annual report on the Police Administration of the town of Calcutta and its suburbs for the year 1921.]

Administrative improvements.

340. The effect of the increase of pay granted to the subordinate ranks in the previous year was to improve recruitment and, in spite of other difficulties tending to unsettle the staff, the number of resignations among

constables was the lowest in the last ten years with the exception of 1915. The readjustment of pay in consequence of changed economic conditions was completed for the whole force, the emoluments of the upper subordinate staff and the mounted police were revised in the course of the year, while inspectors and sub-inspectors were also granted free uniforms. To cope with the increasing complexity of traffic and crowd control, additional staff was sanctioned for work in the Public Vehicles Department and the Traffic Court.

Crime.

341. Crime in the aggregate decreased slightly, chiefly in respect of miscellaneous offences under the Police and Municipal Acts, while more prosecutions were undertaken for cruelty to animals and for infringements of the regulations relating to motor vehicles and hackney carriages. Serious crime, however, did not abate, and there was a noticeable rise in the number of cases of rioting and robbery. Though industrial unrest was less marked and strikes were fewer during the year, the public peace was seriously disturbed on two occasions during a strike of tramway workers, and the police had to use force to restore order. Robbery cases were largely the work of those dangerous characters or *goondas*, mostly from up-country, who constitute a constant menace to public peace and security. The problem of effectively controlling this unruly element is receiving special attention. The police staff appointed to investigate it continued its work and besides acquiring much valuable information, prosecuted offenders whenever possible, sending up for trial for bad livelihood 902 persons as against 790 in 1920 and 671 in 1919. But in spite of this vigorous preventive action, the evil has not been brought under control. The difficulties are well known; the terror inspired by these hooligans is reflected in the reluctance of their victims to complain or give evidence; their frequent changes of abode make adequate surveillance by the police exceedingly difficult; and the preventive sections of the Code of Criminal Procedure are in many respects unsuited to the conditions of city life. Accordingly the suggested remedy to which reference was made last year has been further examined and a measure is under consideration to confer on the Local Government executive power to remove these undesirables from the city.

Public Vehicles Department.

342. Various changes were effected in the course of the year in the administration of the Public Vehicles Department and the regulation of traffic. On the recommendation of a committee appointed to examine the question, Government amended the existing rules with the object of securing a more efficient taxi-cab service. Power to cancel or suspend drivers' licenses was delegated to the Commissioner of Police, and an additional Magistrate was appointed to try offences against traffic regulations and the rules relating to vehicles. The executive staff was increased in order to ensure closer supervision and control, and the location of the Hackney Carriage Branch separately from the Motor Vehicles Branch has provided increased facilities for the prompt examination of vehicles produced for registration. The greater executive vigilance thus rendered possible is reflected in the largely increased figures of prosecutions under the Motor Vehicles and Hackney Carriage Acts. Fewer new private motor vehicles were registered; and new driving licenses for taxi-cabs decreased considerably owing to the strict enforcement of the revised rules, but the total number of vehicles running in the streets is larger than ever. It is therefore not surprising that the number of persons injured in street accidents was slightly larger, though there were fewer fatalities. This problem is not likely to become less difficult, especially in view of the rapid expansion of heavy motor transport, and of the increasing construction of large buildings with the consequent congestion of traffic on the streets in which they are situated. The question of regulating heavy motor traffic, fixing appropriate speed limits, and prohibiting the use of certain streets was referred to public bodies for their views and is now under the consideration of Government. The particular form of street congestion due to the concentration of business and population in large blocks of buildings is a matter closely associated with municipal building regulations and the problem of minimising this difficulty deserves the consideration of the Corporation.

Buildings.

343. The new police hospital was completed and opened during the year, but quarters for the medical staff have not been constructed. The only other projects carried through were the acquisition of land for the erection of armed police barracks and the extension of the headquarters building at Lal Bazar to provide quarters for the subordinate staff. The construction of these buildings and other much-needed accommodation waits on the proposal to finance house-building schemes from a loan, the details of which have not yet been finally settled. Meanwhile the uneconomical system of hiring houses has to continue and the rent bill rose from Rs. 4,01,958 to Rs. 4,60,978.

The year's work.

344. Never has the police administration of Calcutta been beset with so continuous a succession of difficulties, the Calcutta Police subjected to so severe a strain as in 1921. Strikes accompanied by disturbances characterised the early months of the year. These were followed by the excesses of the non-co-operation and Khilafat movements, fostered by agitators whose ever-increasing activities, manifested in violent speeches, and in the development of boycotting, picketing, and intimidation, culminated during November and December in an intensive campaign directed towards the deliberate subversion of lawful authority. The lawless conduct of a misguided section of the population and the measures by which public confidnece was restored and authority asserted are well known and need not be recapitulated. The arduous and difficult task imposed on the police was performed throughout with admirable cheerfulness, patience, and restraint.

Criminal Justice.

[Report on the administration of Criminal Justice in the Presidency of Bengal during the year 1921.]

Judical staff.

345. For Sessions work, the staff consisted of 21 Sessions Judges and 10 Additional Sessions Judges employed throughout the year. Three Subordinate Judges vested with the powers of Assistant Sessions Judge were employed in Burdwan, Dacca and Mymensingh; they decided 34 cases. Fifteen temporary Additional Sessions Judges were employed in the province, namely, one each at Howrah and Midnapore till the end of the year; two at Rajshahi, *viz.*, one throughout the year, exclusive of the civil court vacation, and the other, from the 26th November till the end of the year; one at Pabna-Bogra throughout the year, exclusive of the civil court vacation; one at Chittagong from the 1st January till the 11th March; one at Dinajpur from the 1st January to the 2nd April, and again from the 6th November till the end of the year; one at Noakhali from the 1st January till the 30th September; one each at Bakarganj and Murshidabad, from the 14th March and the 1st April, respectively till the end of the year; one at Chinsura (Hooghly) from the 16th June till the end of year, exclusive of the civil court vacation; one at Tippera from the 13th July till the 23rd December; two at the 24-Parganas from the 11th June and the 29th August, respectively, till the end of the year, exclusive of the civil court vacation; and one at Dacca from the 3rd November till the end of the year.

The magisterial staff employed at the close of the year, including that of the Presidency town, consisted of 352 stipendiary and 733 honorary magistrates. These figures represent a decrease of 9 and 21 respectively, on the numbers of the previous year. Three special magistrates were employed during the year, *viz.*, one each at Darjeeling, Noakhali and Chittagong. They decided 2, 161 and 14 cases, respectively. Of the 352 stipendiary magistrates, 246 exercised first, 71 second, and 35 third class powers.

There were 132 benches of magistrates constituted from among 641 honorary magistrates in the mufassal. Of the total, 101 were independent and 31 were restricted to the trial of cases under the Municipal Act.

Offences reported.

346. There were 316,702 criminal offences reported during the year, a decrease of 32,663 on the figures of 1920.

Of the total, 166,915 were under the Indian Penal Code, and 149,787 under special and local laws. These totals are less by 21,120 and 11,543, respectively, than those of 1920. The decrease was most marked in Tippera, Mymensingh, Dacca and Bakarganj, as regards offences under the Penal Code; and in the Presidency town, as regards offences under special and local laws.

Cases found to be false.

347. The number of cases found to be false, or in which complaints were dismissed, was 49,348 or 15·5 per cent. of the number reported during the year. These figures include cases pending enquiry at the close of 1920. The percentage for the preceding year was 17·2. Complaints were dismissed in 45,581 cases or 9,381 less than in 1920. The number of cases declared to be false after trial or inquiry was 3,767 or 1,458 less than in 1920.

Cases found to be true.

348. Of the total number of cases under enquiry, 267,998 were found to be true, and of these, 207,615 were brought to trial. Inquiries were pending in 18,084 cases at the close of the year. Compared with 1920, the number of cases found to be true and the number brought to trial show a decrease of 21,195 and 21,023, respectively.

ORIGINAL JURISDICTION.

I.—Magistrates' Courts.

Total cases for trial.

349. Of the total number of cases brought to trial, 87,789 were in the courts of the police and municipal magistrates in the Presidency town, and 119,826 in the courts of magistrates in the mufassal.

(A) Presidency Magistrates, Calcutta.

350. The number of cases brought before the Presidency Magistrates, including the municipal magistrates, was 12,116 less than in 1920. The number of cases under special and local laws fell from 90,028 to 78,473 and that under the Penal Code from 9,877 to 9,316. The decrease under the former head was most marked in offences under the Police Act which fell from 47,776 to 35,932. Under the Penal Code, the largest decrease was in offences against property which fell from 3,244 to 2,979.

On the other hand, there was a noticeable increase in the number of offences under the Hackney and Stage Carriages Acts, which rose from 1,977 to 4,274 and under the Bengal Motor Car and Cycle Act, from 5,755 to 7,444.

Before the Presidency Magistrates, other than the municipal magistrates, 73,821 cases were disposed of during the year, of which 9,315 were before stipendiary magistrates, 62,243 before honorary magistrates sitting singly, and 2,263 before benches. The corresponding figures for 1920 were 82,301, 7,925, 71,064, and 3,312, respectively. Three hundred and sixty-one cases were pending at the close of the year. Of the total number disposed of, 54 were committed to the High Court, and the remainder were finally decided by magistrates under the summary procedure. The number of witnesses examined before the police magistrates was 22,992 as compared with 21,724 in 1920. The number of those who attended and were discharged without examination was 29 or ·1 per cent. of the whole number in attendance. Of the total number in attendance, 18,971 (82·41) were discharged on the first, 3,857 (16·75) on the second, 176 (·76) on the third, and 17 (·08) after the third day. The number of witnesses detained for more than three days was 6 less than in 1920. The number of cases brought before the municipal magistrates was 14,183 and 45 cases were pending from the previous year. The number of cases disposed of was 14,199, of which 14,013 were decided under the summary procedure. The remaining twenty-nine cases were pending at the close of the year. Compared with 1920, the number of cases instituted and disposed of shows a decrease of 3,277 and 3,217, respectively. The number of witnesses examined before the municipal magistrates fell from 5,877 to 3,982. Of those in attendance, four were detained for more than three days.

Results of trials.

351. The aggregate number of persons under trial before the Presidency Magistrates, other than the municipal magistrates, was 81,993. Of the persons tried, 8,131 were acquitted or discharged, 73,130 were convicted, four died, 69 were committed to the sessions and 659 remained under trial at

the close of the year. Of the persons acquitted or discharged, the cases of 3,007 were compounded, withdrawn, or dismissed for default. Of the persons tried for offences under the Penal Code, 7,059 were convicted and 3,746 acquitted or discharged. The results of trials before each class of magistrates during the year are shown below :—

	Acquitted or discharged.	Convicted.	Percentage of convictions.
Stipendiary magistrates	3,077	9,023	74·5
Benches of ,, ...	229	2,211	98·6
Honorary magistrates sitting singly ...	4,825	61,896	92·7

Of the persons convicted, 3,650 were punished with rigorous imprisonment, including five persons who were sentenced to solitary confinement; 1,930 were punished with simple imprisonment, 63,232 with fine, and 149 with whipping. Of the persons sentenced to fine, 132 were so sentenced in addition to other punishments.

Sentences of imprisonment passed in the cases of 23 youthful offenders were commuted to detention in a reformatory school. Three thousand three hundred and twenty-six convicted persons were warned and discharged.

In addition to these sentences, 518 persons were required to furnish security for good behaviour, and all of them were imprisoned in default for terms not exceeding one year; 10 persons convicted; of offences involving a breach of the peace were ordered to execute bonds to keep the peace; 267 persons were released on probation under section 562, Criminal Procedure Code; and various miscellaneous orders were passed under special laws in the cases of 190 persons. The number of persons released on probation of good conduct shows an increase of 40, as compared with 1920.

Before the municipal magistrates, 17,041 persons were under trial, of whom 16,107 were convicted, 876 were acquitted or discharged, 14 died and 44 remained under trial at the close of the year. The percentage of convictions was 94·8. Of the persons convicted, 9,889 were punished with fines, and the remainder were ordered to comply with the various requirements of the rules and by-laws of the Calcutta Corporation.

(B) Magistrates outside Calcutta: Cases for trial.

352. At the opening of the year, 6,962 cases, besides cases of lunatics, were pending before magistrates outside Calcutta. During the year, 119,841 cases, including references under sections 347 and 349, Criminal Procedure Code, were brought to trial, 119,908 were disposed of and 6,860 remained pending at its close. In the remaining 35 cases, the accused died, escaped or were transferred. The number of cases brought to trial was 8,903 less than in 1920, the decrease being in cases under the Indian Penal Code (4,776) and also under special and local laws (4,127). Under the Indian Penal Code the decrease in offences against property (2,722) and in offences affecting the human body (2,081) was very prominent.

A decrease in the number of cases instituted is reported from nineteen and an increase from seven, districts. The largest decrease was in Mymensingh (1,504) and the largest increase in Chittagong (486).

The decrease in Mymensingh occurred in cases both under the Penal Code and under special and local laws; the decrease under the former head was chiefly in offences affecting the human body and against property. The increase in Chittagong was chiefly in cases under the Ports Acts.

The disposals were distributed as follows:—

	Tried regularly.	Tried summarily.
District Magistrates	141	83
Subordinate stipendiary magistrates ..	73,845	24,487
Honorary magistrates	12,941	369
Benches of magistrates	3,064	4,786
Special Magistrates	177	...

In addition to the cases shown above, District and Sub-divisional magistrates decided 15 cases referred to them under sections 347 and 349 of the Code of Criminal Procedure.

The number of cases decided during the year was 8,857 less than in 1920. The decrease occured in the courts of honorary magistrates, subordinate stipendiary magistrates, and benches of magistrates who disposed of 5,486, 2,110 and 1,372 cases, respectively, less than in the preceding year. The number of cases disposed of by special magistrates and District Magistrates shows an increase of 58 and 53, respectively.

The total number of cases disposed of by District Magistrates was 239, the largest number having been decided by the District Magistrate of Chittagong (99).

Results of trials.

353. Of the total number of cases shown in the preceding paragraph, 1,302 were committed or referred to the sessions and 118,606 were finally disposed of by magistrates. In these latter, 172,818 persons were accused or 5,849 less than in 1920. Of the total, 80,857 or 46·8 per cent. were convicted and 91,961 or 53·2 per cent. were acquitted or discharged. In 1920 48·2 per cent. of the persons tried were convicted.

Of the persons acquitted or discharged, the cases of 48,678 were compounded, withdrawn or dismissed for default. The percentage of convictions of persons actually tried was 65·1 per cent. against 65·8 in 1920.

Of the persons tried for offences under the Indian Penal Code, 28,487 or 27·3 per cent. were convicted, and 75,864 or 72·7 per cent. acquitted or discharged. Of the latter, the cases of 43,484 persons were compounded, withdrawn or dismissed for default. The percentage of convictions of persons actually tried under the Penal Code was 46·8 against 49 in 1920.

The total number of persons awaiting trial before magistrates at the close of 1921 was 13,431 as compared with 12,336 in 1920. Of these, 54, all of whom, except three, were on bail, were awaiting trial for more than six months. Of these three persons in custody, two in Darjeeling were awaiting trial under section 408 and one in Mymensingh under sections 379/75, Indian Penal Code. Explanations of delays in the disposal of all cases pending for more than three months, submitted by the magistrates concerned, have been considered by the High Court and the necessary orders have been passed on them. The total number of persons in custody at the close of the year was 1,115 against 929 in 1920.

The general result of trials before magistrates of each class was as follows:—

Class of Magistrates.	NUMBER OF PERSONS. Acquitted or discharged.	Convicted.	Percentage of convictions.
Benches of magistrates	3,509	5,728	62
Subordinate stipendiary magistrates ...	77,409	66,884	46·3
Honorary magistrates	10,464	7,575	41·9
Special magistrates	238	72	23·2
District Magistrates	341	598	63·6

Of the persons shown above as convicted, the numbers tried summarily were 4,752 by benches of magistrates; 26,015 by subordinate stipendiary magistrates; 339 by honorary magistrates; and 397 by District Magistrates.

The mode of trial of the total number of persons convicted and the nature of the sentences passed were as follows:—

Nature of trial.	Appealable sentence.	Non-appealable sentence.
On regular trial	35,345	14,009
On summary trial	4,951	26,552

Punishments.

354. The sentences passed on persons convicted were as follows:—

Imprisonment	Rigorous	16,414
	Simple	1,121
Fine	With imprisonment	1,967
	Without imprisonment	57,045
Whipping	Sole punishment	343
	Additional punishment	1

A term of solitary confinement was included in 25 of the sentences of rigorous imprisonment and in the cases of 27 youthful offenders the sentence of imprisonment was commuted to one of detention in a reformatory school. Three thousand one hundred and fifty-three persons were called upon to give security to be of good behaviour, of whom 2,999 were sentenced to terms of imprisonment not exceeding one year on failing to comply with the orders. Six hundred and sixty-nine persons, against 614 in 1920, were released on probation under section 562 of the Code of Criminal Procedure. Against 30 persons who had previously been so released, proceedings were subsequently taken and 29 were convicted and punished. In addition to substantive punishments, 2,709 persons were required to execute bonds to keep the peace, of whom 803 were convicted of offences involving a breach of the peace.

Of the sentences of imprisonment imposed, 3,529 were for terms not exceeding fifteen days; 11,521 for terms not exceeding six months; 5,440 for terms not exceeding two years; and 17 for terms exceeding two years.

Sentences of whipping were passed on 344 persons, against 408 in the preceding year. Of these, six were not in accordance with the Whipping Act of 1909. In all these cases the sentences were executed.

The fines imposed aggregated Rs. 6,40,225. Rs. 5,34,609 were realised, of which Rs. 88,471 were paid as compensation to complainants.

355. In addition to criminal trials, the following were the more important classes of work dealt with by magistrates in the mufassal:— **Miscellaneous proceedings under the Code of Criminal Procedure.**

There were 1,933 proceedings under Chapter VIII, Criminal Procedure Code, to prevent a breach of the peace, in which 9,059 persons were involved. The number of cases and persons involved was less than the number brought before the courts in 1920. Of the persons concerned, 1,906 were required to execute bonds to keep the peace, in addition to the persons mentioned in the preceding paragraph as having been similarly bound down on conviction. The number of persons dealt with under this chapter was largest in Faridpur (1,232), followed by Bakarganj (1,195), and Mymensingh (1,122). Compared with the figures of 1920, there was a noticeable increase in the number of proceedings of this class in Rajshahi, Dacca and Dinajpur and a marked decrease in Bakarganj, Khulna, Pabna and Faridpur.

In 1,877 cases, 4,252 persons were called upon to show cause why they should not give security to be of good behaviour, and the orders were made absolute against 3,444. Of these, 3,288 failed to give the required security and were imprisoned in default, 289 after reference to the courts of session under section 123 of the Code, and 2,999 under orders of magistrates, for terms not exceeding one year.

Proceedings for the abatement of nuisances under Chapter X of the Code were taken in 610 cases, and in the cases of 147 persons a reference was made to a jury under section 138 of the Code.

The number of cases under Chapter XII of the Code, involving questions of the possession of land decided by magistrates, was 1,362, showing a decrease of 26 on the figures for 1920.

Three hundred and twenty-nine complainants were ordered to pay compensation to accused persons, under section 250 of the Code, the accusations having been found to be frivolous or vexatious.

Proceedings for maintenance under Chapter XXXVI of the Code were taken against 869 persons, and orders were made absolute against 284.

The number of witnesses examined in the courts of magistrates in the mufassal was 327,371 as compared with 355,134 in 1920. The number who attended and were discharged without examination was 147,153 or 31 per cent. of the whole number in attendance; the percentage in the preceding year was 30·7. The amount paid to witnesses on account of expenses of their attendance rose from Rs. 2,96,786 in 1920 to Rs. 3,09,363 in 1921. **Witnesses.**

Of the total number in attendance, 342,703 (72·2 per cent.) were discharged on the first day; 95,697 (20·2 per cent.) on the second day; 29,775

(6·3 per cent.) on the third day; and 6,349 (1·3 per cent.) after the third day. The number of witnesses detained for more than three days was 1,504 less than in 1920.

The districts in which the largest percentage of witnesses was detained for more than three days were Nadia and Bakarganj (2·6) each, Bankura (2·3) and Howrah (2·2). Explanations of these detentions have been dealt with by the High Court.

II.—Courts of Session.

Commitments.

356. The number of cases committed for trial or referred during the year was 1,302 against 1,322 (revised figures) in 1920; and the number decided, including the cases pending from the previous year, was 1,350 against 1,255 (revised figures). There were 210 cases pending at the close of the year. Commitments decreased in twelve, increased in twelve, and remained the same in two districts. The decrease was marked in the following districts: in Bakarganj from 178 to 144, in Rangpur from 74 to 44, in Midnapore from 50 to 37, in Bogra from 32 to 22, and in Murshidabad from 34 to 25.

The increase was noticeable in Tippera from 39 to 54, in Rajshahi from 30 to 44, in Khulna from 39 to 51, in Howrah from 33 to 45, and in Nadia from 28 to 39. The number of commitments was largest in Mymensingh (145.)

Results of trials.

357. There were 3,866 persons, or 128 more than in 1920, under trial before the courts of session. The cases of 3,295 persons were decided, 13 persons died or escaped, and 558 persons remained under trial at the close of the year. Of the 3,295 persons tried, 1,724 or 52·3 per cent. were convicted and 1,358 were acquitted or discharged, and the cases of 213 persons were referred to the High Court under sections 307 and 374 of the Code of Criminal Procedure.

Punishments.

The following sentences were passed by the courts of session:—

Death		12
Transportation	for life	67
	for a term of years	45
Imprisonment	rigorous	1,281
	simple	16
Fine		57
Whipping		10

Of those sentenced to rigorous imprisonment, the sentences in the cases of eight persons included terms of solitary confinement. Thirty-eight of the sentences of fine and five of whipping were additional punishments. Besides the above, 289 persons were sentenced to rigorous or simple imprisonment (12 for terms not exceeding one year and 277 for terms between one year and three years) on failure to furnish security for good behaviour.

Sentences of imprisonment were passed for the following terms:—

Not exceeding	15 days	11
	6 months	146
	2 years	451
	7 „	925
Exceeding	7 „	52

Fines to the amount of Rs. 6,080 were imposed by courts of session, as compared with Rs. 6,088 imposed in the preceding year. The total realisations of the year aggregated Rs. 3,521, as compared with Rs. 1,779 in 1920. The amount of the fines realised and paid as compensation fell from Rs. 400 to Rs. 200.

Jury trials.

358. The number of persons tried by jury was 2,820 and of the persons so tried, the Sessions Judge approved of the verdict of the jury in respect of 2,436 and disapproved of it in respect of 384 persons.

The Sessions Judge disagreed with the verdict of the jury in regard to 201 persons and referred the cases to the High Court under section 307 of the Code of Criminal Procedure. The results of these references are given under the head "superintendence, reference and revision."

Trials by assessors.

359. The number of persons tried with the aid of assessors was 69. In the cases of 61 persons, the Sessions Judge concurred in the opinion of both the assessors; in the cases of 2 he differed from the opinion of one, and in the cases of 6 he differed from the opinion of both the assessors. The corresponding figures of 1920 were 64, 33, 18 and 13, respectively.

Duration of cases.

360. The average duration of sessions trials, from the date of commitment to the date of decision, rose from 58·8 days in 1920 to 61·9 days in 1921. Notice was, as usual, taken by the High Court of all cases of unusual duration.

The duration of cases was highest in the district of the 24-Parganas (169·7), followed by Dacca (78), Malda (76·5), Rangpur (72·8), Bogra (69·7), Burdwan (69·2), Murshidabad (67·4), and Mymensingh (64·7). There was a marked increase from 89 to 169·7 days in the 24-Parganas, from 7·4 to 76·5 days in Malda, from 49 to 78 days in Dacca, from 49·7 to 72·8 days in Rangpur, from 24·7 to 47·5 days in Chittagong and from 43·5 to 61 days in Hooghly. On the other hand, there was a noticeable reduction from 135 (revised figure) to 56 days in Rajshahi, from 94·5 to 46·8 days in Bakarganj, from 90·6 to 69·2 days in Burdwan, from 57·7 to 37·2 days in Darjeeling, and from 78·3 to 64·7 days in Mymensingh.

Witnesses.

361. The number of witnesses in attendance before the courts of session was 27,584. Of these 17,986 were examined and 9,598 discharged without examination, against 16,465 and 9,096 respectively, in 1920. Of the total number in attendance 11,313 (41 per cent.) were discharged on the first day; 8,790 (31·9 per cent.) on the second day; 4,543 (16.5 per cent.) on the third day; and 2,938 (10 6 per cent.) after the third day. The proportion of witnesses discharged after the third day shows an appreciable reduction. The High Court have taken due notice of cases of excessive detention of witnesses in reviewing the district reports. The amount paid to witnesses on account of expenses incurred by them in attending sessions trials was Rs. 1,04,675 as compared with Rs. 86,678 in 1920.

Commitments etc., to the High Court.

362. One case was pending at the commencement of the year, and fifty-four cases were brought to trial during the year. Of these, fifty (including a case split up) were tried during the year and six remained undecided at its close. Altogether 64 persons were tried, of whom 27 were convicted and 37 acquitted. The number of witnesses examined was 459 and the average duration of cases from commitment was 41·6 days against 34·2 days in 1920.

APPELLATE JURISDICTION.

I.—High Court.

Appeals.

363. At the opening of the year, 58 appeals from sentences or orders of criminal courts were pending before the High Court. During the year, 614 appeals were preferred and 628 were decided, leaving 44 pending at its close. The number preferred and decided was 59 and 35 less than in the preceding year. The pending file shows a decrease of fourteen appeals. Of the appeals preferred against sentences, 462 were from courts of session and 148 from courts of Presidency Magistrates. Four appeals were preferred by the Local Government against orders of acquittal.

Results of Appeals.

364. Four hundred and seventy-one appeals against sentences of courts of session were decided. The orders of the lower courts were upheld in 426, reversed in 10, and modified in 33 instances. Two cases were remanded for re-trial.

One hundred and fifty-one appeals from the orders of magistrates of the Presidency town were decided, the orders being affirmed in 132, modified in 8 and reversed in 9 cases. Two cases were remanded for re-trial.

The results of appeals decided, as affecting individuals, were that the appeals of 824 persons were summarily dismissed, under section 421 of the Code of Criminal Procedure, and that in admitted appeals, the sentences on 190 appellants were confirmed, on 49 reduced or altered, on 5 enhanced, and on 37 annulled. In the cases of thirteen persons, a new trial or further inquiry was ordered.

Six appeals by the Local Government against orders of acquittal were decided during the year. In the first case, the accused was convicted by a deputy magistrate under sections 193 and 423 of the Indian Penal Code and sentenced to 9 months' rigorous imprisonment under each section, the sentences to run concurrently. On appeal, he was acquitted by the Sessions Judge. The High Court set aside the order of acquittal and restored the order of the first court. In the second case, the accused was charged with an offence under section 302 of the Indian Penal Code and was acquitted by the Sessions Judge of Hooghly, agreeing with the unanimous verdict of the jury. The High Court set aside the order of acquittal and remanded the case to the Additional Sessions Judge of Hooghly, sitting at Howrah, for re-trial. In the third case, the appeal was against the order of acquittal passed by a Presidency Magistrate in respect of three persons, who were charged with offences under sections 224 and 225/353 of the Indian Penal Code. The High Court convicted two of the accused under section 225B of the Indian Penal Code, and sentenced one of them to pay a fine of Rs. 100, or, in default, to undergo rigorous imprisonment for six weeks, and the other to pay a fine of Rs. 50, or, in default to undergo rigorous imprisonment for one week; and in regard to the third accused, upheld the order of acquittal. In the fourth case, eleven persons were charged with offences under sections 395 and 120B of the Indian Penal Code and were acquitted by a Sessions Judge, who agreed with the unanimous verdict of the jury. The High Court dismissed the appeal. In the fifth case, the accused was charged with an offence under section 15 of the Licensed Warehouse and Fire-brigade Act, 1893, and was acquitted by a deputy magistrate. The High Court dismissed the appeal. In the sixth case, the accused was charged with offences under sections 380 and 454 of the Indian Penal Code and was acquitted by a deputy magistrate. The High Court convicted the accused of an offence under section 411 of the Indian Penal Code and sentenced him to undergo rigorous imprisonment for six months.

II.—Appellate Courts Subordinate to the High Court.

Sessions Courts.

365. There were 254 appeals pending before the courts of session at the opening of the year. During the year, 3,024 appeals were preferred, 3,131 were decided and 147 remained pending at its close. The number of appeals preferred was 451 less than in 1920. In the appeals decided 5,085 persons were concerned. The appeals of 1,339 persons, or 26·3 per cent. were summarily dismissed; 1,806 appellants, whose appeals were admitted, were altogether unsuccessful; 743 obtained a reduction or alteration of sentence; 1,137 were acquitted; and in the case of 60 appellants, a new trial or further inquiry was ordered.

The proportion of persons whose appeals were wholly unsuccessful, successful in obtaining a modification of the original orders and successful in obtaining their reversal, was 61·8, 14·6 and 22·3, respectively. Of those concerned in admitted appeals, only, the proportions were 48·3, 19·8, and 30·3 per cent. In the case of admitted appeals, the results were less favourable to appellants than in the previous year.

Magistrates' Courts.

366. In the courts of magistrates, 168 appeals were pending at the opening of the year. During the year, 3,205 appeals were preferred, 3,186 were decided and 185 remained pending at its close. The number preferred was 455 less than in 1920.

The number of persons whose appeals were decided by courts of magistrates was 5,205. Of these, the appeals of 1,327 were summarily dismissed, and the sentences on 2,057, whose appeals were admitted, were confirmed, making a total of 3,384 wholly unsuccessful appellants, or 65 per cent. Of

the remainder, 512 appellants or 9·8 per cent. obtained a modification of the sentences passed on them, 1,220 or 23·4 per cent. their total annulment and in the cases of 88 appellants, a new trial or further inquiry was ordered. The case of one person was referred to the High Court. Compared with 1920, the results were less favourable to appellants.

SUPERINTENDENCE, REFERENCE AND REVISION.

I.—High Court.

References under section 307, Code of Criminal Procedure.

367. Six references under section 307 of the Code of Criminal Procedure from verdicts of juries were pending in the High Court at the opening of the year, and 77 were made during the year. Sixty-three of these references were decided during the year and 20 remained undecided at its close. Of the 63 cases disposed of, the verdict of the jury was accepted in 21, set aside in 38, and modified in 4, cases.

References under section 374, Code of Criminal Procedure.

368. Nine references under section 374 of the Code of Criminal Procedure for confirmation of death sentences were made to the High Court during 1921, and one was pending at the opening of the year. All ten cases in which 13 persons were concerned were decided during the year. The death sentence was confirmed in the cases of five, and commuted to transportation for life in the cases of seven persons. The remaining person was acquitted.

References under section 341, Code of Criminal Procedure.

369. The case of one person, who, though not insane, could not be made to understand the proceedings, was referred for the orders of the High Court. The High Court discharged the accused who had been found guilty by the subordinate court under section 407 of the Indian Penal Code.

Revision.

370. During the year, 173 cases were reported for the orders of the High Court by Sessions Judges and District Magistrates under section 438 of the Code of Criminal Procedure, and 7 were pending at the opening of the year. Of these, 162 were decided and 18 remained pending. The number reported was 4 less than in 1920. In 58 cases the orders sent up for revision were set aside, or the proceedings quashed, and in 28 a new trial was ordered. In 25 cases the sentences were reduced or altered and in 5 cases enhanced. In the remaining 46 cases, the High Court declined to interfere.

Under section 435 of the Code of Criminal Procedure, orders were passed in 941 cases, a decrease of 179 on the figures of the previous year. Of these 938 came before the High Court on application and three were taken up by the Court on review of sessions statements or otherwise of its own motion.

Of the applications for the issue of rules, 563 were rejected. Of 375 rules issued, 147 were finally discharged; 78 were made absolute in their entirety; the orders complained of were modified in 49, and quashed in seventeen cases. In the remaining 84 cases, a new trial was ordered. Of the three cases taken up by the High Court *suo motu*, in one, the order passed by the lower court was not disturbed, in another the sentence was enhanced and in the third case the sentence was reversed.

Applications for transfer.

371. Ninety-seven applications under section 256 of the Code of Criminal Procedure for the transfer of cases (96 original cases and 1 appeal) from one court or district to another were received during the year and 3 cases were pending from the previous year. Of these, 92 were disposed of and 8 remained pending. Twenty-six were summarily rejected and in three cases transfers were granted without the issue of a rule. In 63 cases rules were issued with the result that transfers were granted in 42, and refused in 21 cases.

II.—Courts Subordinate to the High Court.

Sessions Courts.

372. Including the cases of accused prsons who themselves applied for revision of the orders passed on them in the courts of magistrates, and of those against whom such applications were made by complaints, the cases of 6,987 persons were decided on revision by courts of session during the year.

The number was 440 less than in 1920. The application of 1,562 persons were rejected, while the orders of the lower courts were confirmed in the cases of 2,441 persons. The orders passed were revised in the cases of 109 persons, modified in those of 3, and the proceedings were quashed in the cases of 8 persons. The cases of 335 persons were referred to the High Court, and in the cases of 2,529 persons new trials or further inquiries were ordered.

Magistrates' Courts.

373. The cases of 2,231 accused persons who applied for revision, or against whom applications were made by complainants, came before District Magistrates for revision. The number was 1,352 less than in 1920. Of the total, the applications of 621 persons were rejected, and in the cases of 891 the original sentence or order was upheld. The sentences or orders were modified in the cases of 13 persons and reversed in those of 177 persons; the proceedings were quashed in the cases of 24 persons and new trials or further enquiries were directed in those of 468 persons. The cases of 37 persons were referred to the High Court.

III.—General.

Trials of European British Subjects.

374. The cases of 89 European British subjects were decided during the year, as against 157 in the previous year. Of these, 88 were dealt with by magistrates and one by the High Court. Of the accused persons dealt with by magistrates, none claimed to be tried by a mixed jury.

In the cases disposed of by magistrates, 57 persons were convicted and 31 were acquitted. In 50 cases the convictions were for offences under special and local laws, in five cases for offences affecting the human body, in one case for an offence affecting the public health, etc., and in one case for defamation. The accused in the case disposed of by the High Court was committed by the Subdivisional Magistrate of Barrackpore on charges under sections 302 and 307 of the Indian Penal Code, and was tried by a special Jury. The trial resulted in the discharge of the accused. The number of European British subjects tried was largest in the 24-Parganas (41).

General.

375. Compared with 1920, there was a general decline in original cases, appeals and revision cases instituted during the year under review except in the High Court where there was a slight increase in the number of cases referred under sections 307 and 374, Criminal Procedure Code. The number of original cases disposed of by magistrates both in the mufassal and in the Presidency town and the amount of appellate and revisional work disposed of by District Magistrates were considerably less than in 1920. In the courts of session there was an increase in the outturn of original work but a decrease in that of appellate and revisional work. In the High Court, there was a general decrease in the criminal work disposed of except in respect of references under sections 307 and 374, Criminal Procedure Code.

Twenty-one persons (one in Nadia, one in Jessore, two in Dacca, eight in Chittagong and nine in the Presidency town) were under trial for offences against the State. Of these, six were acquitted, fourteen convicted and one remained under trial at the close of the year.

During the year under review, illegal sentences of whipping were passed in six cases.

Receipts and charges.

376. After debiting, as usual, to the administration of criminal justice, a portion of the salaries of judicial officers, calculated according to the time which their returns show them to have devoted to it, the total charges for the year amounted to Rs. 34,24,935. Of this amount, Rs. 18,32,605 were for the salaries of judicial officers; Rs. 1,44,689 for fixed and temporary copying establishments; Rs. 1,55,509 for process servers; Rs. 5,85,205 for other establishments; and Rs. 7,06,927 for contingencies and refunds.

The receipts amounted to Rs. 16,91,277. Of this amount, Rs. 8,88,896 were under fines; Rs. 1,56,793 under process-fees; Rs. 1,57,426 under copying and comparing fees; Rs. 3,75,282 under court-fee stamp receipts other

than the above and Rs. 1,12,880 were miscellaneous receipts. Compared with the figures of 1920, the receipts show a decrease of over Rs. 1,46,000 and the charges an increase of over Rs. 4,25,000.

CRIMINAL JUSTICE IN THE SCHEDULED DISTRICT OF THE CHITTAGONG HILL TRACTS.

377. The number of cases brought to trial during 1921 was 308. The total number of cases disposed of was 379. The number of witnesses examined was 863. The total number of persons under trial, including those awaiting trial from the previous year was 736; of these 522 were discharged or acquitted and 135 convicted. Of the cases brought to trial 88 were for theft, 23 for criminal trespass, and 31 for offences under special and local laws. The total number of appellants and applicants for revision was 106, of whom 40 were wholly or partly successful. **Chittagong Hill Tracts.**

Jails.

[The Report on the Administration of the Jails Department in the Presidency of Bengal for the year 1921.]

378. The total number of prisoners admitted to the jails in Bengal during the year 1921 was 83,366 or 401 more than in 1920 and the daily average number for the year was 14,661 against 15,357 in the previous year. Of these, the non-co-operation movement is responsible for 5,802, Calcutta alone contributing 3,667 such prisoners. This necessitated the opening of a temporary jail to which 1,721 men were admitted during 11 days. The Presidency Jail with a registered accommodation for 1,884 at one time held 2,783 prisoners, while the district jails of Chittagong, Rangpur and Faridpur were temporarily overcrowded. **Jail Population.**

379. Owing to the unrest caused by the non-co-operatian movement an outbreak occurred in the Central Jail of Rajshahi on the 24th March 1921, and 669 out of 969 prisoners escaped. The majority were however recaptured. Outbreaks also occurred subsequently on a small scale in the subjails at Sirajganj and Netrakona. In some other jails conspiracies to violence were discovered and suppressed in time. **Outbreaks in Jails.**

380. The total number of jail offences committed was 16,338 against 18,559 in the previous year and the ratio of total punishment to daily average population was 129·18 against 144·53 in 1920. The penalty of whipping was inflicted in 33 cases against 61 in the previous year. **Jail Offences.**

381. The year was an exceptionally healthy one. Not only was the number of admissions to hospitals lower than in any of the previous four years but also the daily average number of prisoners in hospitals decreased to 663 as compared with 813 in the preceding year. **Health and mortality of prisoners.**

The death-rate 16·0 per mille was very low, approaching the 1917 figure of 15·8 per mille which is the lowest on record. The chief diseases causing sickness and mortality were malaria and dysentery as a very large number of prisoners were suffering from these diseases when admitted to jail.

382. The number of juvenile prisoners under 16 years of age admitted to the jails was 337 which is a maximum for the last ten years. The Bengal Children's Act, 1922, has now been passed and it is trusted that this measure which *inter alia* provides that no child under the age of 14 shall under any circumstances be sentenced to death, transportation, or imprisonment for any offence, will result in a considerable reduction of the number of juveniles committed to jail. The number of prisoners sentenced to imprisonment for less than one month was 7,975 as compared with 8,826 in the previous year. **Juvenile Offenders and short sentences.**

383. To meet the religious demands of Muhammadan convicts, long trousers instead of shorts have been provided for them. Honorary Muhammadan preachers have been appointed in a few jails for the purpose of giving **Reforms.**

moral and religious instruction to Muhammadan prisoners on Fridays. The burial of dead Muhammadan prisoners in accordance with Muhammadan rites at the expense of Government has also been sanctioned. Sikh prisoners have been allowed to retain certain of their religious symbols. Female non-official visitors have been appointed in a few jails. Their duties will be confined to female yards only.

Deportation to the Andamans.

384. Arrangements were made for the transfer from the Andamans of all political prisoners, female convicts, and other prisoners whose retransfer to India was considered necessary on medical grounds, and orders were passed by the Government of India prohibiting entirely the deportation to the Andamans of female convicts and certain other classes of criminals. No convict from Bengal was transferred to the Andamans in 1921.

Civil Justice.

[Report on the Administration of Civil Justice in the Presidency of Bengal during the year 1921.]

Judicial staff.

385. The permanent civil judicial staff employed in the Presidency during 1921 consisted of 14 High Court Judges, 21 District Judges, 10 Additional District Judges, a Chief Judge and six Judges of the Presidency Small Cause Court, three Provincial Small Cause Court Judges who exercised also the powers of a Subordinate Judge, 43 Subordinate Judges and 235 Munsifs. In addition, four executive officers exercised the powers of a Subordinate Judge or Small Cause Court Judge, and two the powers of a Munsif.

The following changes in the personnel of the High Court took place during the year :—

Mr. H. G. Pearson continued to act as an Additional Judge throughout the year. Mr. Z. R. Zahid Suhrawardy was appointed as a Judge with effect from the 25th February, *vice* Nawab Sir Syed Shamsul Huda, resigned with effect from the 3rd January. Mr. A. H. Cuming, I.C.S., officiated as a Judge from the 10th February till the 28th August and on the 9th November, *vice* the Hon'ble Mr. Justice C. P. Beachcroft, on furlough. The latter having resigned his office as a Judge with effect from the 9th November, the former was confirmed in his place from the 10th idem. Mr. E. B. H. Panton, I.C.S., officiated as a Judge from the 4th April till the 28th August, *vice* the Hon'ble Mr. Justice Walmsley, on furlough. Mr. A. J. Chotzner, I.C.S., officiated as a Judge from the 21st July till the 28th August, *vice* the Hon'ble Mr. Justice Richardson, on furlough. Mr. E. B. H. Panton, I.C.S., officiated as a Judge with effect from the 11th November till the end of the year, *vice* the Hon'ble Mr. Justice Greaves on deputation with effect from the 9th November, as President of a Committee appointed to formulate a practical scheme for the separation of executive and judicial functions in Bengal. Mr. B. B. Ghose was appointed to act as an Additional Judge with effect from the 11th November. Mr. A. J. Chotzner, I.C.S., again officiated as a Judge with effect from the 21st November till the 22nd December, *vice* the Hon'ble Sir Asutosh Mookerjee, Kt., on deputation with effect from the 19th November, on special duty with the Committee of Enquiry, Bangalore Institute of Science.

In addition to the permanent staff, the following temporary appointments in the subordinate courts were sanctioned during the year :—

Temporary Additional District Judges were employed, one each at Howrah and Midnapore, till the end of the year; two at Rajshahi, viz., one throughout the year, exclusive of the civil court vacation, and the other, from the 26th November till the end of the year; one at Pabna-Bogra throughout the year, exclusive of the civil court vacations; one at Chittagong from the 1st January till the 11th March; one at Dinajpur from the 1st January to the 2nd April, and again from the 6th November till the end of the year; one at Noakhali from the 1st January till the 30th September; one each at Bakarganj and Murshidabad, from the 14th March and the 1st April, respectively, till the end of the year; one at Chinsura (Hooghly) from the 16th June till the end of the year,

exclusive of the civil court vacation; one at Tippera from the 13th July till the 23rd December; two at the 24-Parganas from the 11th June and the 29th August, respectively, till the end of the year, exclusive of the civil court vacation; and one at Dacca from the 3rd November till the end of the year.

Temporary Additional Subordinate Judges were employed, one at Bakarganj till the end of the year; one each at Howrah and Chittagong, throughout the year, exclusive of the civil court vacation; and one each at Dacca, Burdwan and Noakhali from the 3rd February, the 1st July and the 7th September, respectively, till the end of the year, exclusive of the civil court vacation.

Temporary Additional Munsifs were employed one each at Chittagong, Dacca (Narayanganj), Dinajpur (Balurghat), Khulna, Pabna-Bogra (Serajganj) and Rangpur, and four at Mymensingh (viz., two at Iswarganj and one each at Sadar and Jamalpur), throughout the year, exclusive of the civil court vacation.

ORIGINAL JURISDICTION.

I.—High Court.

Original suits instituted.

386. The number of civil suits pending on the Original Side of the High Court at the end of 1920 was 4,565, including 92 suits received by transfer from other courts, and the number instituted during 1921 was 3,721, including 40 suits received by transfer from other courts and two remanded for retrial during the year, making a total of 8,286 for disposal in 1921. Of the suits instituted during 1921, 2,876 were for money or movable property, 194 were mortgage suits, and 202 were for immovable property.

The value of suits for specific money claims was Rs. 5,22,26,287 as compared with Rs. 2,62,87,926 in the previous year.

Original suits disposed of.

387. The number of suits decided in 1921 was 2,908. The number undisposed of at the end of the year was 5,378. The number pending at the close of the year exceeded the number pending at the close of the previous year by 813. There were 2,841 suits pending over one year, showing an increase of 411 on the figures of the previous year.

Of the suits decided—

1,050 were dismissed for default or want of prosecution,
11 were withdrawn with leave,
193 were determined by compromise,
167 were decreed on confession,
868 were decreed *ex parte*,
26 were disposed of by reference to arbitration,
444 were decreed after contest, and
149 were dismissed after contest.

Prize Cases.

388. The cases against seven ships (in respect of six of which orders had previously been made for delivery to the Lords of the Admiralty upon their requisition) and one claim against the cargo of another, referred to in the reports of the previous five years, were pending at the close of the year.

Cases under the extraordinary jurisdiction.

389. At the commencement of the year, six suits were pending in the High Court in its extraordinary original civil jurisdiction, and two suits were transferred to it during the year. Of these, two were disposed of during the year and six remained pending at its close.

Probates and letters of administration, etc.

390. During the year, 501 petitions for probate and letters of administration, and 15,634 interlocutory applications (including applications for the appointment of guardians under the Guardians and Wards Act, 1890, for the appointment of guardians *ad litem* for the appointment of receivers, for injunctions, for discovery of documents, for execution, for summonses to witnesses, for special leave to file written statements after time) were disposed of. Of the interlocutory applications, 8,724 were disposed of by the Court or by a Judge in chambers and the remainder (6,910) by the Registrar and the Master.

Awards under the Indian Arbitration Act, 1899.

391. The number of awards filed and that of applications made in execution thereof were 433 and 179, respectively.

References to take accounts, etc.

392. The number of references to take accounts, to make inquiries as to estates to be administered or partitioned, as to debts and incumbrances, as to allowances to be made for maintenance on questions of title, on questions affecting minors in proposed terms of settlement, to settle conveyances, and in like matters, pending at the commencement of the year, was 133. Fresh references were directed by the Court in 357 cases. Of the total, 310 were disposed of by the Registrar, the Official Referee and Master and their assistants.

Conveyances and sureties.

393. During the year, the Registrar settled 10 conveyances and inquired into the sufficiency of sureties in 132 cases. The Registrar further inquired into the sufficiency of sureties in 226 matters in which administration bonds were executed.

Appeals from the original jurisdiction.

394. The number of appeals pending from the previous year was 54, and 144 new appeals were preferred to the Appellate Side of the Court. Of the total number, 17 were dismissed for default or otherwise not prosecuted, and 103 were decided. Of the latter, the decrees of the courts of first instance were affirmed in 60, modified in 13 and reversed in 28 cases; two cases were remanded for re-trial. Seventy-eight appeals remained undecided at the close of the year.

References from the Calcutta Court of Small Causes.

395. The only reference pending from the previous year was disposed of, and none was made during the year.

References under section 51 (1) of the Indian Income Tax Act of 1918.

396. One reference was pending from the previous year and three were made during the year. Of these, two were disposed of and two remained undecided at the close of the year.

Applications for the transfer of cases from the Calcutta Court of Small Causes.

397. Seventy-four cases transferred under section 39 of the Presidency Small Cause Courts Act, 1882, were pending at the commencement of the year, and 35 cases were transferred on applications made under that section during the year. Of the 109 cases for disposal, 23 were disposed of and 86 remained pending at the close of the year.

Twelve cases transferred under section 24 of the Code of Civil Procedure were pending at the commencement of the year, and three cases were transferred under that section during the year. Of the 15 cases for disposal, two were disposed of and 13 remained pending at the close of the year.

Twenty-two applications, under section 115 of the Code of Civil procedure, for the calling up of records from the Calcutta Court of Small Causes, were made to the High Court during the year. Of these, 10 applications were dismissed, in eight cases the rules issued were discharged, in two cases the rules issued were made absolute and two cases were remanded for re-trial. None remained pending at the close of the year.

Insolvency cases.

398. The number of cases, under the old and new Acts, pending in the Insolvency Court at the commencement of the year, was 163 and 883, respectively, and the number instituted during the year was 211. Of the 1,257 cases for disposal, 42 were disposed of, the adjudication being set aside or superseded or the petition being withdrawn or dismissed in nine and the insolvents obtaining relief in 33 cases. Two thousand two hundred and sixty-nine applications of a miscellaneous character were also disposed of during the year.

Duration of Sittings.

399. For the hearing of original suits and applications, one Judge sat alone for 29 days, two Judges sat separately and simultaneously for 13 days, three Judges sat separately and simultaneously for 142 days, and four Judges sat separately and simultaneously for 26 days. The Insolvency Court engaged the time of one Judge for 13 days. Appeals from the Original Side and references under section 51(1) of the Indian Income Tax Act,

1918, occupied a bench of two Judges for 105 days, and a bench of three Judges for two days, respectively, against 88 and three days in 1920. A case in the Court's disciplinary jurisdiction occupied a bench of three Judges for two days.

400. Nine appeals from the Original Side were pending from the previous year, and seven were admitted during the year. Of these, seven were disposed of and nine remained pending at the close of the year. **Appeals to the Privy Council.**

401. The following statement shows the receipts and expenditure of the High Court on the Original Side during 1921:— **Receipts and Expenditure.**

Receipts.

	Rs.	A.	P.
Commission of the Accountant-General	17,007	12	3
Commission on sales by and on security deposits with the Registrar	38,582	4	0
Receiver's commission	41,177	8	11
Other fees realised by means of stamps	5,18,842	6	0
Probate and administration duty	9,27,570	12	0
Fines	325	0	0
Total ...	15,43,505	11	2

Expenditure.

	Rs.	A.	P.
Salaries of Judges engaged on the Original Side and in respect of appeals from that side	2,30,197	14	4
Establishment	3,58,305	4	1
Contingencies	40,100	14	0
Total ...	6,28,604	0	5

402. The number of bills taxed during the year was as follows:— **Taxing office.**

Between party and party	1,203
„ attorney and client	201

The court-fees for taxation during the year amounted to Rs. 19,912-8-0. This sum is also included in the item "other fees realised by means of stamps."

403. The following figures exhibit the financial results for the last three years, including under the head expenditure the salaries of the Judges:— **Financial results.**

Year.	Receipts (a)	Receipts (b)	Expenditure.
	Rs.	Rs.	Rs.
1919	21,91,537	5,56,800	5,78,008
1920	18,82,225	4,74,512	5,50,276
1921	15,43,505	6,15,935	6,28,604

(a) Including the duty raised on the grant of probates and letters of administration.
(b) Excluding ditto ditto ditto

II.—Civil Courts in the Mufassal Subordinate to the High Court.

404. The three villages of Kalikapur, Baduriakandi and Purva Hosennagar were transferred from the jurisdiction of the Nabinagar munsifi in the district of Tippera to that of Narayanganj in the district of Dacca, with effect from the 31st May 1921. **Changes of village jurisdiction.**

The village of Badekhatura was transferred from the jurisdiction of the Bongong munsifi in the district of Jessore to that of Barasat in the district of the 24-Parganas, with effect from the 8th June 1921.

Original suits instituted.

405. The number of suits instituted in 1921 was 644,045, a decrease of 95,264 on the figures of the previous year.

The decrease occurred in money, rent and title suits to the extent of 19·2, 8·3 and 10·3 per cent., respectively. The number of money suits instituted was 237,597 against 294,304 in 1920.

The total value of suits instituted in 1921 amounted to Rs. 10,20,65,067, showing a decrease of Rs. 2,10,37,915 on the total for 1920. The decrease is mainly due to the fall in institutions under all classes of suits.

Local distribution.

406. There was a decrease in the number of suits instituted in all the districts except Dinajpur.

The decrease was most marked in Mymensingh, Tippera, Bakarganj and Faridpur. In Mymensingh, Tippera and Faridpur it occurred chiefly in money suits and in Bakarganj in rent suits.

The largest number of suits was instituted in the district of Mymensingh (65,560), where the number of money, rent and title suits (27,594, 31,113 and 6,853, respectively) was the heaviest in the province. In no other district did the institutions exceed 50,000.

In Dacca, the 24-Parganas and Tippera the institutions were between 40,000 and 50,000, and in Midnapore, Faridpur, Bakarganj, Jessore, Rangpur and Dinajpur, between 30,000 and 40,000. In respect of rent suits, Mymensingh held the first place with 31,113 institutions, and Midnapore the second place with 25,779 institutions.

In the districts of Noakhali, Nadia, Pabna-Bogra, Chittagong, Hooghly, Rajshahi, Khulna, Murshidabad and Burdwan the institutions were between 20,000 and 30,000. Birbhum with 13,808 and Bankura with 13,058 show the lowest figures.

Nature of suits instituted.

407. The majority of suits instituted was, as usual, for small sums, as the following figures show :—

		Suits for money and movables.	Suits under the rent law.	Title and other suits.
	Rs.			
Not exceeding	10 ...	9,586	79,041	2,424
	50 ...	89,003	169,206	14,215
	100 ...	58,434	53,379	10,227
	500 ...	72,996	35,807	27,903
Exceeding Rs. 500 or value not stated ...		7,578	2,567	11,679
	Total ...	237,597	340,000	66,448

In suits for money or movables 41·4 per cent., and in rent suits 73 per cent. were for sums less than Rs. 50.

In suits under the rent law, 95·4 per cent. were for realization of arrears of rent. Of the suits classified as title suits, 43·3 per cent. were mortgage suits, 40·1 per cent. were for immovable property, and 3·5 per cent. were for specific relief. The title suits represent in value more than half the total litigation of the province. Of the 68 suits instituted during the year, which were valued at over a lakh, 66 were title and two were money suits.

Number of suits disposed of.

408. In addition to the 644,045 suits instituted during the year, there were 237,255 suits pending trial from the previous year, and 13,478 suits were revived, or received on remand or review, making a total of 894,778 suits for disposal.

The number of suits disposed of was 704,282, a decrease of 12,346 on the figures of 1920.

Of the total number, 674,463 were disposed of by Munsifs, 16,342 by Subordinate Judges, 12,915 by Small Cause Court Judges, and 562 by District and Additional Judges. The figures show a decrease in all grades of courts, but it was slight in the courts of District and Additional Judges.

Results of suits disposed of.

409. In the suits disposed of during the year, plaintiffs were unsuccessful in 131,258 cases, or 18·6 per cent., of which 106,219 were dismissed for default; a compromise was effected in 76,066 cases, or 10·8 per cent., and plaintiffs were successful in 496,958 cases, or 70·6 per cent. The results are more favourable to plaintiffs than in the preceding year.

Of the 81,733 suits decided on contest, 68,954 or 84·4 per cent. resulted in favour of plaintiffs, and 12,779 or 15·6 per cent. in favour of defendants.

Applications for retrials.

410. The percentage of applications for retrial to the number of cases which were dismissed for default, or in which decrees were made *ex parte*, was 4·8, the numbers being 531,161 and 25,943, respectively. The applications were successful in 12,055 cases, or 46·4 per cent.

Suits decided by Munsifs.

411. The number of suits disposed of by Munsifs fell from 684,199 to 674,463, a decrease of 9,736.

The average number of suits disposed of by each Munsif was 2,730, against 2,747 in 1920. Disposals under the Small Cause Court procedure formed 26·4 per cent. of the total.

The number of contested suits disposed of by Munsifs was 76,893, or 11·4 per cent. of the total. The average number of contested suits decided by each Munsif was 311, against 320 in 1920. The percentage of contested suits disposed of by Munsifs under the ordinary procedure was 12·3 and under the Small Cause Court procedure 8·6. The figures are :—

Under Ordinary Procedure.		Under Small Cause Court Procedure.		Total.
Contested.	Uncontested.	Contested.	Uncontested.	
61,446	434,434	15,447	163,136	674,463

The number of cases decided by Munsifs under the ordinary procedure shows a decrease of 11,512, as compared with 1920.

Suits disposed of by Subordinate Judges.

412. The number of original suits disposed of by Subordinate Judges was 16,342, a decrease of 2,028 on the figures of the previous year. The decrease was in cases decided both under the ordinary procedure and Small Cause Court procedure and was spread over both contested and uncontested suits. The number of suits decided under the ordinary procedure was 6,369 and under the Small Cause Court procedure, 9,973; of these, 27·9 per cent. and 13·02 per cent., respectively, were contested. The percentage of suits decided after contest, both under the ordinary and Small Cause Court procedures, shows a slight decrease, as compared with the previous year.

Suits disposed of by Small Cause Court Judges.

413. The provincial Small Cause Court disposed of 12,915 original suits of which 1,617 were contested, or 74 less than in the previous year.

Average duration of suits.

414. The average duration of suits (contested and uncontested) decided by the several grades of courts is given in the following statement :—

		District Judges.	Subordinate Judges.	Munsifs.	Small Cause Court Judges.
		Days.	Days.	Days.	Days.
Under ordinary procedure	Contested ...	367	590	268	...
	Uncontested	255	364	142	...
Under Small Cause Court procedure.	Contested ...	...	120	114	116
	Uncontested	...	75	71	73

The results show a general increase in the average duration of both contested and uncontested suits except in respect of suits under the ordinary procedure in the courts of Subordinate Judges.

Pending suits.

415. The number of suits pending at the close of the year was 190,559, against 237,255 in the previous year. The decrease is chiefly due to smaller institutions during the year.

Of the pending suits, 14,902 had been pending for more than a year, 61,862 for more than six months and 50,043 for more than three months. The figures show an increase in the number of suits pending over one year and three months, and a decrease in the number pending for more than six months. Of the suits pending over one year, 11,788 were in the courts of Munsifs and 3,114 in the courts of District and Subordinate Judges, the figures showing an increase of 3,479 and 510, respectively, as compared with 1920. A large proportion of these suits (60·5 per cent.) were, however, pending for final decree.

The number of suits pending over a year was largest in Midnapore (2,102) followed by Bakarganj (1,922), Faridpur (1,146), the 24-Parganas (1,036) and Mymensingh (956). In Midnapore 91·7 per cent. of the year-old suits had been pending for final decree. As compared with the figures of the previous year, the number of year-old suits shows an increase in each of these districts. In all these districts the congestion occurred principally in the Munsifs' courts. As usual, the delays were generally due to adjournments granted at the request of the parties. Additional assistance was given where necessary.

Execution proceedings.

416. There were 133,221 applications for execution of decrees pending from the previous year, and 499,024 applications were made during the year. Realization was complete in 153,262 cases and partial in 97,254. In 245,344 cases proceedings were returned as infructuous, and 129,688 cases remained pending at the close of the year. The number of cases in which execution proceedings were unsuccessful, was most marked in Dacca, Faridpur and Nadia, the percentages of totally infructuous proceedings in these districts being 71·5, 63·1 and 57·4, respectively. The total amount realized in courts other than Small Cause Courts was Rs. 2,43,69,888.

Debtors were imprisoned in 62 cases; movable property was sold in 8,262 and immovable property in 82,359 cases.

Miscellaneous cases.

417. The number of miscellaneous cases of a judicial nature instituted rose from 96,148 to 97,626. The number disposed of rose from 97,681 to 99,801 and the number pending fell from 24,297 to 23,337. Of the cases disposed of, 49,715 were withdrawn, compromised or confessed; 32,858 were decided *ex parte*, and 17,228 were contested. Of the total number of applications disposed of after contest, 48·9 per cent. were granted. Of the pending cases, 820 had been pending over a year, the 24-Parganas being responsible for the largest number (277).

The number of miscellaneous cases of a non-judicial nature instituted was 6,428, showing a decrease of 710. Of these, more than half were applications for the deposit of rent. Disposals numbered 6,481. The pending file fell from 904 to 857. The number of applications for the deposit of rent was highest in the 24-Parganas (587), followed by Rajshahi (434), Bakarganj (420), Hooghly (411) and Midnapore (310).

III.—Calcutta Small Cause Court.

Number of suits.

418. The number of suits instituted and decided in the Presidency Court of Small Causes during 1921 and the number pending at its close were 24,374, 26,584 and 5,372, respectively. The number instituted and disposed of shows an increase of 1,007 and 421, respectively, while the number pending was smaller than in 1920 by 771. One hundred and thirty applications were filed under section 626 of the Calcutta Municipal Act (Bengal Act III of 1899).

The increase in institutions was spread over all classes of suits except those valued at sums not exceeding Rs. 50.

The total value of the litigation was Rs. 78,56,258, against Rs. 55,80,895 in the preceding year.

The average duration of contested and uncontested suits was 106 and 77·2 days, against 126 and 81·8, respectively, in 1920.

Mode of disposal.

419. Of the suits disposed of, 1,480 were dismissed for default or want of prosecution, or withdrawn with leave; 19,832 were decided without contest in the manner shown below; 5,246 were decided after contest or upon reference to arbitration, and in 26 cases the plaint was either rejected or returned.

Compromised	...	...	...	...	8,127
Decreed on confession	...	...	...	...	3,355
Decreed *ex parte*	...	...	...	...	8,347
Dismissed *ex parte*	...	...	...	...	5
			Total	...	19,832

Of the 5,372 suits pending at the close of the year, 2,169 were over three months old, against 3,223 in 1920.

Execution of decrees.

420. Of 17,390 applications for the execution of decrees dealt with during the year including 6,448 pending from the previous year, 13,816 were determined and 3,574 remained pending at the close of the year. Of the latter, 208 were more than three months old. Of the applications disposed of, 7,164 resulted in whole or partial satisfaction of the decrees granted, 3,756 were returned as wholly infructuous, and 2,896 were transferred to other courts.

The total amount realized was Rs. 6,23,738, as compared with Rs. 5,03,849, in the previous year.

Coercive processes.

421. In order to enforce the execution of decrees, imprisonment was resorted to in 59, and sale of movables in 384 cases. These figures show a decrease of 14 and an increase of 19, respectively, on those of 1920.

APPELLATE JURISDICTION.

I.—High Court.

Appeals under section 15 of the Letters Patent.

422. One hundred and forty-four appeals from decisions on the Original Side were filed during the year and 54 were pending at its commencement. Of the total, 120 were decided and 78 remained pending at the close of the year. The number of appeals disposed of was 28 less than in 1920. On the Appellate Side, 28 such appeals were filed during the year and 47 were pending at its commencement. Of these, 37 were decided and 38 remained pending at the close of the year.

II.—Appeals from the Subordinate Civil Courts.

Appeals to the High Court from subordinate courts.

423. The number of first and second appeals from the decrees and orders of the provincial courts of original and appellate jurisdiction, respectively, which came before the High Court and were decided during the year is shown in the following statement:—

	Pending at the end of 1920.	Preferred.	Decided.	Pending at the end of 1921.
FIRST APPEALS				
From decrees ...	523	224	294	453
From orders ...	206	232	173	265
SECOND APPEALS.				
From decrees ...	4,050	2,616	1,343	5,323
From orders ...	140	155	152	143
TOTAL ...	4,919	8,227	1,962	6,184

The above figures include appeals from the courts of Assam. The number of the first appeals from decrees and orders shows a decrease of 62 and 9 and of second appeals from decrees and orders a decrease of 369 and 45, respectively, compared with the figures of the preceding year.

Appeals decided.

424. The number of first and second appeals from decrees disposed of shows a decrease of 45 and 1,406, respectively, and the number of such appeals from orders a decrease of 27 and 12, as compared with the figures of the previous year.

Appeals pending.

425. At the close of the year, 718 first appeals and 5,466 second appeals were pending. Of the former, 453 were from decrees and 265 from orders, and of the latter, 5,323 were from decrees. The total number pending at the close of the year was 6,184, against 4,919 at the close of the previous year.

Civil work of the High Court.

426. The following statement shows in detail the civil business which has come before the High Court in its appellate jurisdiction during each of the past four years:—

	Brought before the Court. (a).				Heard and determined. (a).			
	1918.	1919.	1920.	1921.	1918.	1919.	1920.	1921.
First appeals from decrees ...	342	316	286	224	399	427	339	294
First appeals from orders ...	219	236	241	232	290	384	200	173
Second appeals from decrees ...	2,836	2,810	2,985	2,616	3,405	2,767	2,749	1,343
Second appeals from orders ...	106	143	200	155	140	44	164	152
Appeals under the Letters Patent.	107	321	203	172	102	237	273	157
References to Full Bench ...	2	32	6	...	1	30	9	...
Applications for review ..	18	23	23	42	18	22	23	43
References	4	4	9	16	6	3	10	5
Motions	4,931	3,134	1,477	1,030	4,931	3,134	1,477	1,030
Rules granted	624	773	971	1,123	740	781	891	846
Divorce cases	1	8	7	12	4	8	4	11

(a) Include cases of Assam.

Of the 224 appeals from original decrees instituted during the year under review, 13 were from Assam and the remainder from Bengal.

Details of appeals.

427. The following table shows the value of the appeals from the original and appellate decrees of the subordinate civil courts brought before the Court during the year:—

	Appeals from original decrees of subordinate civil courts.	Appeals from appellate decrees of subordinate civil courts.	Second and third appeals under the Letters Patent.
Rs.			
Not exceeding 10 ...	...	135	5
Not exceeding 50 ...	...	763	20
Not exceeding 100 ...	1	409	...
Not exceeding 500 ...	10	603	...
Not exceeding 1,000 ...	7	136	3
Not exceeding 5,000 ...	40	161	...
Not exceeding 10,000 ...	63	...	...
Not exceeding 1,00,000 ...	42	...	...
Exceeding 1,00,000 ...	9	...	...
Value not denotable in money ...	51(a)	409(b)	...
Total ...	224	2,616	28

(a) Of these, forty-four were will cases, one was for partition, two for title, one a mortgage suit, two testamentary suits (Act V of 1881) and one under section 92 of the Civil Procedure Code (Act V of 1908).

(b) Of these, one was suit for partition, one for declaration, two for possession, one under section 77 of the Registration Act and the rest were suits under sections 105, 106, 108 and 109 of the Bengal Tenancy Act.

Results of appeals.

428. Of the 294 appeals from original decrees decided, 40 were uncontested, being dismissed on default, withdrawn or compromised. The results of the appeals decided after contest were that the decrees of the lower courts were confirmed in 180, reversed in 39, and varied in 25 cases, while 10 cases were remanded.

Of the 1,343 appeals from appellate decrees decided, 94 were uncontested and 691 were dealt with under Order XLI, rule 11 of the Code of Civil Procedure. Five hundred and fifty-eight appeals were heard and determined, with the result that 353 decrees of the lower courts were affirmed, 84 reversed, and 14 varied, and 107 cases were remanded.

Of the 325 appeals from orders decided, 53 were uncontested, 83 were dealt with under Order XLI, rule 11 of the Code of Civil Procedure, and 189 were decided after trial, with the result that 106 orders of lower courts were affirmed, 38 reversed, and 20 varied, and 25 cases were remanded.

The following table shows the results of appeals decided by the High Court as affecting District Judges and Subordinate Judges:—

		Affirmed.		Modified or Reversed.	
		District Judges.	Subordinate Judges.	District Judges.	Subordinate Judges.
Appeals from	Original decrees ...	66	114	37	27
	Appellate decrees	163	190	38	60
Miscellaneous appeals ...		58	48	32	26

Appeals to the Privy Council.

429. At the opening of the year 8 appeals to the Privy Council were under preparation for despatch to England and 52 were pending for orders. Thirty-two new appeals were filed during the year. Of the total for disposal, 23 were struck off or compromised, 19 were despatched to England and 50 appeals were pending at the close of the year, viz., 1 of 1919, 29 of 1920 and 20 of 1921. Of the pending appeals, 28 were under preparation for despatch to England at the close of the year.

Results of appeals to the Privy Council.

430. The results of 12 appeals to the Privy Council were received during the year. The decisions of the High Court were affirmed in 10 instances, and reversed in 2.

III.—Appellate Courts Subordinate to the High Court.

Appeals instituted.

431. Fifteen thousand, nine hundred and fifteen appeals were instituted in 1921, showing a decrease of 5,488, as compared with the previous year.

Of the appeals instituted, 7,099 were in rent suits, 6,713 in title suits, and 2,103 in suits for money or movables. The numbers show a decrease of 4,462, 679 and 347, respectively.

The number of appeals valued at sums below Rs. 10 and between Rs. 10 and Rs. 50 was 1,583 and 4,995, respectively. The total value of the appeals instituted in the subordinate courts was Rs. 29,21,431, and was less than that of 1920 by Rs. 3,06,112.

The number of cases in which an appeal lay, decided by subordinate courts, was 58,915 and the proportion of appeals instituted to appealable decisions, excluding appeals from decisions of revenue officers, was 26·3 per cent., as against 34·9 in 1920. The percentage was highest in Tippera (42·8) followed by Burdwan (41·9), the 24-Parganas (37·5) and Hooghly (37·1); and it was lowest in Dinajpur and Faridpur (19), Rajshahi (19·6) and Bankura (20·3).

The number of appeals instituted was smaller than in the previous year in 15, and larger in 6, districts. The decrease in institutions was most marked in Tippera (1,594), 24-Parganas (922), Noakhali 763), Murshidabad

(511), Mymensingh (427), Faridpur (304) and Bakarganj (177), and the increase in Burdwan (100). In the remaining districts the variations were less than 100.

Appeals disposed of.

432. The number of appeals decided was 20,474 and shows a decrease of 785 in the number decided by District and Additional Judges and of 50 in that decided by Subordinate Judges, as compared with the previous year. The number of apeals disposed of after contest (15,861) was 673 less than in 1920.

The decrease in disposals was spread over 8 districts and was largest in Midnapore (3,978), followed by Rajshahi (682), Faridpur (551) and Hooghly (336). The decrease in Midnapore was due to the disposal of a larger number of special appeals in the previous year. In Rajshahi and Faridpur it is due partly to the employment of a smaller staff and in Hooghly to the pressure of criminal work and to the District Judge's deputation to preside over the Electoral Court at Alipore.

On the other hand, there was a noticeable increase in Noakhali (2,305) owing to the disposal of a large number of special appeals.

Appeals pending.

433. The number of appeals pending at the close of the year was 20,358 and was less than that of 1920 by 4,047.

The number of over one-year old appeals further rose from 6,523 to 7,046. Rajshahi was accountable for the largest number, viz., 1,810.

Results of appeals.

434. The results on the decision of the lower courts of the appeals decided during the year were as follows:—In 9,911 cases, or 48·4 per cent. of the whole, the judgment of the lower courts was affirmed; in 3,185 cases, or 15·6 per cent., it was modified, and in 3,130 cases or 15·3 per cent., it was reversed. One thousand, one hundred and seventy-four, or 5·7 per cent., were remanded, and 3,074, or 15 per cent., were either not prosecuted or dismissed for default. The results are more favourable to the lower courts than in the preceding year.

Miscellaneous appeals.

435. Three thousand, three hundred and sixty-eight appeals were instituted and 3,671 were disposed of during the year, leaving 1,255 appeals pending at the close of the year. The number pending was 238 less than in the previous year.

IV.—General.

General.

436. There was a considerable decrease in the institutions of original suits and appeals in the subordinate courts, as a result of which, notwithstanding a decrease in disposals, the arrears were appreciably reduced. The number of year-old cases, however, was larger than in the previous year both in the original and the appellate courts. On the Appellate Side of the High Court the institutions and disposals were less than in the previous year and there was an increase in the pending file.

Inspection.

437. The Courts of 14 Subordinate and Small Cause Court Judges and 75 Munsifs were inspected by District and Additional District Judges.

Receipts and charges of the Civil Courts.

438. The receipts of the civil courts in Bengal and of the High Court amounted to Rs. 1,59,08,077 showing a decrease of Rs. 9,53,079 and the charges to Rs. 80,50,031 showing an increase of Rs. 7,30,954 on those of 1920. Including the amount realized on account of duty* on probates, etc., as shown below, the profit to Government from civil litigation amounted to Rs. 78,58,046 and excluding this item, it amounted to Rs. 66,77,254:—

				Rs.
In the High Court	...	...	...	8,46,715 (*a*)
In other Courts	...	...	...	3,34,077 (*a*)
		Total	...	11,80,792*

(*a*) The figures are for the financial year 1921-22.

Details of the receipts and charges are as follows:—

Receipts.			Rs.	*Charges.*			Rs.
In Stamps	Process fees	...	29,70,512	Salaries of judicial officers		...	32,77,135
	Other fees	...	1,19,82,353	Establishment	Process servers	...	11,00,389
In cash or special stamps.	Other receipts	...	2,83,029		Others	..	24,29,759
	Copying and comparing fees	...	5,95,622	Copyists' fees ...		...	5,06,236
	Fines	...	76,561	Contingencies and refunds		...	7,36,511
	Total	...	1,59,08,077	Total		...	80,50,031

There was a decrease in receipts under all heads except " fines." Under the head " other fees " the decrease amounted to more than Rs. 8,47,000. The increase in expenditure was under all heads and was most marked under the head " salaries of judicial officers " which exceeded Rs. 3,68,000.

CIVIL JUSTICE IN THE SCHEDULED DISTRICT OF THE CHITTAGONG HILL TRACTS.

Chittagong Hill Tracts.

439. The total number of suits instituted during the year 1921 in the civil courts of the scheduled district of the Chittagong Hill Tracts was 466. All of these were for money or movable property. The total number of civil suits for disposal was 549. Of these 76 were contested and 86 were without trial. The number pending at the close of the year was 76. The number of miscellaneous cases was 1,706. Of these 781 were decreed *ex parte* and 397 were pending at the close of the year. The total number of appeals from decrees was 52 and the number disposed of was 46. The number of miscellaneous appeals was 27, all of which were disposed of. Nine hundred and eighty-three applications were made for execution of decrees, of which 229 were pending at the end of the year.

Registration.

[Statistical returns of the Registration Department in the Presidency of Bengal for the year 1921.]

Progress and statistics of 1921.

440. As in 1920, there were 417 offices at the close of the year.

The total income of the Registration Department declined by 8 per cent., from Rs. 27,65,644 in 1920 to Rs. 25,44,469 in 1921. The total expenditure on the other hand rose from Rs. 13,44,908 in 1920 to Rs. 14,96,153 in 1921, *i.e.*, by about 11·2 per cent. The increase in expenditure was mainly due to (*i*) the entertainment of larger temporary establishment to ensure prompt delivery of documents, (*ii*) expenditure on travelling allowance for census and polling work done by sub-registrars, (*iii*) increases in the rate of travelling allowances sanctioned by Government to officers during transfer, (*iv*) revised rates of postage and money order commission, and (*v*) increase in the pay of menials. The increase was also due to the fact that charges under the following items were incurred for the full year 1921 as compared with a portion of the year 1920:—(*a*) Revision of pay under the scheme of reorganization of ministerial establishment of sub-registry offices, (*b*) *ad-interim* allowance sanctioned for the ministerial establishment, and (*c*) revision of the scale of remuneration of the extra (or temporary) establishment entertained in registration offices.

Results.

441. The outstanding feature of the working of the Indian Registration Act in Bengal for 1921 is the decrease in registrations, which fell from 2,086,448 in 1920 to 1,855,944 in 1921, a drop of nearly 11 per cent.

The extent of the falling off in each Division is shown by the following percentages:—

	Per cent.	
Dacca Division	17·5	decrease.
Chittagong Division	14·1	„
Presidency Division (including Calcutta) ...	8·4	„
Burdwan Division	6	„
Rajshahi Division	2·8	„

Calcutta, which is in a class by itself, shows a fall of nearly 11 per cent., which is mainly due to the reaction after the recent land boom and the general dullness of trade and industry.

Working of the Marriage Act, III of 1872.

442. Fifty-two marriages were registered during the calendar year 1921 under the Marriage Act, III of 1872, as against 28 in 1920. Of these, 41 were registered in Calcutta, 3 in Chittagong and 1 each in Howrah, Hooghly, Midnapore, Burdwan, Jessore, Dacca, Mymensingh and Bakarganj. There were 44 marriage registrars (including 28 *ex-officio* registrars), of whom only 13 registered marriages in the course of the year.

Working of the Muhammadan Marriage Registration Act and the Kazis Act.

443. Bengal Act I of 1876 (an Act for the Voluntary Registration of Muhammadan Marriages and Divorces) was in force in the whole of this Presidency. There were 314 offices at the end of the year 1921 against 303 at the end of 1920. 69,168 ceremonies were registered during the year as against 75,469 in 1920—a decrease of 8·3 per cent., for which the non-co-operation movement is mainly responsible. The total receipts of Muhammadan registrars and kazis, including gratuities, amounted to Rs. 1,36,900 during 1921 against Rs. 1,47,477 in the preceding year.

Working of the Indian Companies Act, 1913 (VII of 1913).

444. At the close of the year 1921-22 the number of companies limited by shares in operation in Bengal was 2,393 with a total nominal capital of Rs. 3,17,21,90,164 and a paid up capital of Rs. 91,26,76,379, as compared with 2,150 companies with Rs. 2,74,02,03,240 nominal and Rs. 73,06,26,969 paid up capital at the close of the preceding year. The number of companies and societies registered during the year was 313 as compared with 452 registered in the previous year. Though the number has fallen, it is still much in excess of that of any other year since the present Act came into force except the record year 1919-20. Of the new companies registered during 1921-22, 288 were limited by shares, 8 were limited by guarantee and 17 were incorporated under the Societies Registration Act, 1860 (XXI of 1860). The most satisfactory feature of the year was the high proportion of paid up capital to authorized capital. The largest number of registrations was under the head " Trading and Manufacturing, " Banking and Loan companies coming next. Five hundred and forty companies increased their capital.

Six companies ceased to work, went into liquidation and were finally dissolved or otherwise became defunct, as compared with 30 in the previous year.

The net receipts of the Registrar of Joint Stock Companies from all sources amount to Rs. 1,06,157-2 against Rs. 1,72,088-8 in the previous year. The decrease is attributed to the smaller number of companies registered during the year under report.

Two new auditors' certificates were granted during the year under-section 144(4) of the Act. The register of auditors at the close of the year showed 12 auditors holding unrestricted certificates and 25 holding restricted certificates granted by this Government.

Eight prosecutions were instituted during the year under the Act and four were pending from the previous year. Of these, eleven ended in convictions and one was withdrawn.

Working of the Provident Insurance Societies Act, 1912 (V of 1912).

445. No change is reported as regards the affairs of Provident Insurance societies. There were only two such societies in existence at the close of the year 1921-22.

Municipal Department and Local Self-Government.

MUNICIPALITIES OUTSIDE CALCUTTA.

[Reports from the Commissioners of Divisions on the working of Municipalities in the Bengal Presidency (except Calcutta) during the year 1921-22.]

Number of municipalities.

446. The number of municipalities (116) remained unchanged. The provisions of the Bengal Municipal Act were extended to the town of Rajbari in the district of Faridpur at the close of the year.

Elections.

447. The elective system has been sanctioned for the Asansol municipality, but owing to the delay in the formation of wards no election was held. General elections were held in 71 municipalities and were contested in the majority of cases. There was no contest in seven municipalities and in twelve other cases, which include Howrah, votes were recorded in only one ward. On the other hand, feeling ran so high in Dacca that in three wards, polling continued up to the next morning. Irregularities frequently occurred in conducting ward elections and some elections were declared null and void. In Burdwan, Dacca, Pabna, and Chittagong, civil suits were instituted by unsuccessful candidates, and in Chittagong the new Board was unable to enter upon office within the year. The issue of Civil Court injunctions in such cases frequently interferes very seriously with the municipal administration and in the new Bengal Municipal Bill, which has recently been drafted and is now under consideration by Government, it is provided that no Court shall issue injunctions of this kind. The election rules were revised so as to provide for voting by ballot. This system was successfully worked in many municipalities, but the Magistrate of Dacca observes that in the case of the Dacca municipality, where the constituency is a large one, it has caused much trouble both to the voters and the polling officers. The number of municipalities in which Govenrment appoint the Chairman was reduced to four. The circumstances of these four municipalities are exceptional and it was considered undesirable to make any change in their constitution for which, moreover, there has been no demand.

Meetings.

448. Altogether 169 meetings, or one in every 14, failed for want of a quorum. The failure was most marked at Jainagar, where 10 out of 15 meetings were adjourned and two proved abortive. At Suri, Nabadwip, and Tangail about one-third of the number of meetings held were unsuccessful. The small municipality of Panihati held the largest number of meetings, viz., 47, while the Commissioners of the Ramjibanpur, Taki, Murshidabad, and Kurseong municipalities failed to meet once a month. The attendance of Commissioners was on the whole fair, but it is reported to be poor at Murshidabad.

Rate-payers and voters.

449. The total number of rate-payers rose from 322,466 to 327,239 or 15·7 per cent. of the total population. The ratio varied from 36·2 in Kumarkhali to 3·5 per cent. in Titagarh, a mill town, with a large cooly population. Other towns in which rates are paid by less than one-tenth of the people are the mill municipalities of Bhatpara, Garulia, Champdany, and Bhadraswar, and the hill stations of Darjeeling and Kurseong.

Assessment and Taxation

450. There was no change in the average incidence of taxation per head of population, viz., Rs. 2-11-5. It is highest in the suburban municipality of Cossipore-Chitpur (Rs. 9-12-9). Next come the hill municipalities of Darjeeling (Rs. 7-13-11) and Howrah (Rs. 7-5-0). In four municipalities, viz., Narayanganj, Chittagong, Maniktala, and Burdwan, the ratio was above Rs. 4, while it is as low as six annas and five pies in Debhatta and under seven annas in Bazitpur. A truer idea of the incidence of taxation can be gained by considering the amount paid by the actual rate-payers, who number about one-sixth of the municipal population. According to this method the incidence comes to Rs. 17-14-1 per rate-payer for the whole Presidency. The variation for individual towns is great, the rate-payers in Darjeeling, for instance, paying Rs. 183 per head, while those in the petty rural towns pay on the average about Rs. 2 each. Generally speaking, the incidence of municipal taxation in the Persidency compared with English standards, is extremely low, and although the comparison cannot be pressed, it is certain that

approximation to English standards in municipal needs and amenities cannot be attained until the widespread aversion to higher local taxation is overcome. A general or partial revision of assessment was made in 52 municipalities, while the revision made in the previous year took effect in seven other towns. The revision produced an increase of Rs. 4¾ lakhs in the municipal demand of the Presidency as a whole. The largest increases were obtained in the municipalities of Maniktala (Rs. 75,271), Garden Reach (Rs. 60,328), Budge-Budge (Rs. 23,576), and South Suburban (Rs. 20,836). In Budge-Budge, however, suits were filed by Messrs. Andrew Yule & Co.—the largest ratepayers—against the revision, three of which have been decreed since the close of the year. A water-rate was imposd for the first time in Noakhali and Naihati, the rate in the latter case talking effect from 1st April 1922, while in Chandpur the water-rate was reduced from 6¼ per cent. to 4 per cent. on account of the large surplus in the water-works fund.

Collections.

451. The total collections for the Presidency as a whole increased from Rs. 54 lakhs to Rs. 58 lakhs, but the precentage on the current demand fell from 95·5 to 92·6, the lowest ratio (54·4) being returned by Budge-Budge. In 13 municipalities the collections were equal to or in excess of the current demand and in 15 they were over 99 per cent. On the other hand the ratio was under 80 per cent.—a deplorably low figure—in 8 towns, falling as low as 54 per cent. in Budge-Budge. Garulia alone collected the full demand without any remission or outstanding balance. The percentage of remissions on the current demand rose from 2·4 to 3·3. It was especially high in Mymensingh (18·8) and exceeded 10 per cent. in six others, viz., Chandrakona, Bansberia, Kotrong, South Dum-Dum, Jainagar, and Rampur-Boalia. No satisfactory explanation has been given for these high ratios.

The balances outstanding at the close of the year from Rs. 7,06.896 to Re. 8,54,003. Of this amount Howrah alone was responsible for Rs 2,28,609. This large accumulation is mainly due to the general revision of assessment followed by appeals. Some old cases were settled in the year, but as the bills were not amended in time the full dues could not be realized. The heavy balances in Cossipore-Chitpur (Rs. 45,311) and Budge-Budge (Rs. 31,738) were due partly to the non-payment of rates, which were the subject of civil litigation. Other municipalities which had outstandings of over Rs. 15,000 were Dacca, Narayanganj, Mymensingh, Barisal, Maniktala, Tollyganj, Bankura, Hooghly-Chinsurah, Bally, Chittagong, and Rampur-Boalia. No satisfactory explanation has been furnished of the large outstanding balances in these cases, but generally they are due to laxity in collection and the unwillingness of the municipal executive to adopt coercive measures for the realization of their demand. The Magistrate of Rajshahi observes that in Rampur-Boalia, there is in this respect a marked deterioration, which is further reflected in the increased amount of remissions.

Income and expenditure.

452. The total receipts including opening balances rose from Rs. 97,43,588 to Rs. 1,14,79,564, the income from rates and taxes rising by nearly 4 lakhs. Expenditure also rose from Rs. 74,26,226 to Rs. 92,95,041, the largest increase, viz., Rs. 14,32,541 being under the head of "Public Health and Convenience."

Closing balances.

453. The closing balances which had risen from Rs. 17 lakhs to Rs. 23 lakhs in 1920-21 fell again to nearly Rs. 22 lakhs; about one-third of the municipalities closed the year with balances exceeding one quarter of their total expenditure. Six municipalities had closing balances of a over a lakh, viz., Cossipore-Chitpur, (Rs. 3,16,223), Howrah (Rs. 2,78,332), Darjeeling (Rs. 2,09,955), Dacca (Rs.1,32,393) Garden Reach (Rs. 1,32,281) and Maniktala (Rs. 1,20,630). No explanation has been furnished for the large balances in Howrah; in other cases they represent the unspent grants and loans received from Government for improvement schemes, such as water-supply, sewerage, etc., and the credit balance of special funds (*e.g.*, water, lighting, hackney carriage). The comparatively large balances standing to the credit of Cossipore-Chitpur and Maniktala are not excessive in the opinion of the Commissioner, regard being had to their needs. On the other hand, a number of municipalities failed to keep adequate working balances and in 15 cases, as

against 13 in the previous year, they were insufficient to meet outstanding liabilities. In the case of Pabna, Muktagacha, Narayanganj, Nabadwip, and Debhatta, the outstanding liabliities exceeded largely the closing balances. The worst offender was Debhatta which had outstanding liabilities of Rs. 684 against an actual balance of Rs. 62 only. Next comes Narayanganj, which closed the year with a sum of Rs. 969 only in hand but with liabilities of nearly Rs. 30,000. The present Chairman remarks that the municipal fund is well-nigh bankrupt.

Public instruction.

454. The amount spent on education was Rs. 3,35,757 or 4·3 per cent. of the municipal income. The actual increase was Rs. 51,802, and as Government grants for educational purposes were less than those for the previous year, it may be inferred that the municipalities are showing greater readiness to discharge their obligations in respect of primary education. Seventeen municipalities, however, or one in every seven (as against 13 in the previous year) failed to spend 3·2 per cent. of their ordinary income, the percentage which is taken to represent the amount required for the education of half the number of boys of primary school-going age. On the other hand 41 spent more than 5 per cent. of their income and 11 over 10 per cent. on primary education.

The municipalities of Cossipore-Chitpur, Garulia, Panihati, Sirajganj, and Darjeeling have adopted the scheme drawn up by Mr. E. E. Biss for the improvement and expansion of primary education. Cossipore-Chitpur received a Government grant of Rs. 20,000 for the construction of primary school buildings. Garulia and Tollygunj decided to impose an education cess, though the latter municipality has not yet adopted Mr. Biss' scheme.

Water-supply.

455. The Naihati water-supply scheme was completed during the year and considerable improvements were made in the Darjeeling water-works, the distribution pipe being extended to Singamari *bustee*. The filtered water-supply was also extended at Barrackpore and Dacca. The opening of the water-works at Noakhali proved extremely beneficial to the towns-people during the recent drought. The water-works at Krishnagar were also completed. A water-supply scheme is now in progress at Comilla, while a bore-hole is being sunk at Government cost at Panihati; if successful, it will serve as the basis of a distribution system. The Chittagong municipality submitted a revised scheme for the improvement of its water-works at an estimated cost of Rs. 1 lakh, Government agreed to contribute Rs. 50,000 on condition that the municipality raised the balance by a loan and increased the water-rate. Faridpur and Rishra-Konnagar, owing to financial difficulties, were unable to proceed with their schemes. The Howrah commissioners had under consideration a project for the improvement of their filtered water supply, to include the supply of water for road watering, drain flushing, and fire brigade purposes. The Berhampore commissioners were in grave difficulties with their water-supply. The water-works have not been efficiently managed and the water-fund is bankrupt; while the general fund is hardly adequate to meet the bare needs of municipal administration. The Minister for Local Self-Government held a conference with the municipal executive and found the commissioners anxious to take all possible measures to overcome the present difficulty. Government have directed a re-assessment, and with the additional revenue which may thus be obtained, the commissioners should be in a position to raise the small loan of Rs. 10,000 which is immediately required for placing the water-works in a proper condition. It is gratifying to notice that the suggestion made in the previous year's resolution that smaller municipalities should undertake water-supply schemes of a cheaper type, based on artesian borings or tube wells, received the approval of several municipalities. Baruipur, with an income of Rs. 10,000 has sunk six new tube wells, while Bogra and Pabna propose to undertake experimental borings. The sinking of an experimental deep tube well has already been taken in hand by the Garden Reach municipality. Generally speaking, it cannot be said that the municipalities of Bengal, though they appreciate the benefits of a pure water-supply, are very ready to secure them by submitting to increased taxation. In the past Government have assisted some of the larger municipalities with liberal grants-in-aid, where these bodies have shown a disposition to help themselves, but even if retrenchment in other directions enables Government to

pursue this policy, it must be many years before State aid on this scale can be given to all the municipalities of the province. Local bodies have as yet made little attempt to adopt the cheaper method of strict reservation of the present supplies, even where an adequate number of tanks exists. Higher local taxation is essential, but in the meantime much could be done by utilizing the provisions of the Act for preventing the pollution of public supplies.

Drainage.

456. Minor works were carried out in Burdwan, Suri, Midnapore, Bally, Budge-Budge, Maniktala, Chittagong, Dinajpur, and Rangpur. At Darjeeling, as an experimental measure, a new type of tipped giving a full flush of 30 gallons per discharge was provided at one of the drains to replace the inefficient system of flushing previously in use, and the results being satisfactory, further extension of this new method of flushing will be carried out gradually. The scheme started in 1917-18 for remodelling all sullage drains in this municipality with Raniganj tiles was completed during the year at a total cost of Rs. 27,224. A project for the improvement of drainage of the area adjacent to the Serampore railway station was approved by Government. The drainage scheme of Hooghly-Chinsurah which is estimated to cost Rs. 9 lakhs, could not be taken up for want of funds and the execution of that prepared for Ward No. I of the Krishnagar municipality had also to be postponed. A supplementary scheme for English Bazar was prepared.

Conservancy.

457. The conservancy charges, which rose from Rs. 19 lakhs to more than Rs. 20 lakhs, were about Rs. 5½ lakhs in excess of the receipts from latrine fees. An additional grant of Rs. 6,530 was made by Government for the completion of the Kurseong sewerage scheme. The Dacca municipality was given a further grant of Rs. 4½ lakhs for its sewerage scheme which is in progress. The important Titagarh scheme, which is estimated to cost more than Rs 10 lakhs, has been very recently sanctioned. Pending a decision in respect of the Grand Trunk Canal project, it has been impossible to sanction drainage schemes prepared for Cossipore-Chitpur, Maniktala, and the neighbouring areas.

Public health.

458. A gratifying feature of the year was the increasing interest displayed by most municipalities in public health. Measures were taken in many municipalities for the improvement of sanitation by filling up or cleansing insanitary tanks, ditches, and *dobas*, and by removing jungle and noxious vegetation. Bye-laws were framed by certain municipalities for the eradication of water-hyacinth. Steps were taken in Khulna for the improvement of insanitary groups of huts by the opening out of new roads and drains. Bhatpara raised about 30 bighas of low land and the municipal commissioners of Sherpur in Mymensingh filled up nine insanitary ditches and re-excavated nine old tanks, overgrown with weeds. In Maniktala no less than 15 foul tanks were filled up by the owners on requisitions made by the commissioners. Birnagar, Chakdah, and Kumarkhali, which are thickly overgrown with jungle, remained apathetic.

Preventive measures were taken to check the spread of epidemics. Medicines and disinfectants were freely distributed as far as possible and special doctors were appointed. Unwholesome food-stuffs were in some cases either destroyed or removed from the local bazars. Cholera broke out in 16 municipalities in the Dacca, Chittagong, and Rajshahi Divisions. In most cases measures were promptly taken to check the spread of the disease. The local zamindars lent the services of two doctors for the treatment of cholera in Muktagacha. Cholera broke out in epidemic form among the Assam coolies who assembled in Chittagong in May and June 1921. The situation, grave as it was, was aggravated by the abnormal political situation, accompanied by a persistent *hartal*, and a general strike of the Indian employees of the Assam-Bengal Railway Company and the India General Navigation and Rivers Steam Navigation Companies. Sanitary measures were, however, organized under the personal guidance of the Commissioner and the Assistant Director of Public Health. Small-pox broke out in epidemic form in Berhampore and Jamalpur. A few deaths from small-pox also occurred in other municipalities, viz., Dacca, Sherpur, Mymensingh, Jalpaiguri, Rangpur, and Bogra.

Free vaccination was carried on by several suburban municipalities and has been introduced for the first time in Krishnagar. In Titagarh, Baranagar, and Bhatpara free home vaccination was given throughout the year. In some municipalities, notices and prosecutions had some effect in improving the vaccination returns.

As an anti-malarial measure quinine was distributed among the poor who suffered from malaria. Maniktala, South Dum-Dum and Nawabganj distributed quinine free among school children. Old Malda and Nawabganj suffered much from malaria, the number of deaths in the latter town being no less than 182. Kala-azar is taking an epidemic from both in the interior and headquarters of Dinajpur. The municipality was without a Health Officer during the whole year, no suitable candidate being available on the present pay.

Mortality was high in Darjeeling on account of epidemics of influenza and relapsing fever. The disinfecting staff of the municipality was largely augmented and a Sub-Assistant Surgeon was appointed. Kurseong suffered less from influenza, but there were cases of enteric fever and diarrhœa. In Chittagong, which had no Health Officer, the two Sanitary Inspectors did useful work. Lantern lectures were given in that town to instruct students in the general principles of public and personal hygiene, while in Mymensingh a campaign on these lines was undertaken with special reference to cholera and small-pox.

Public Works.

459. The amount spent on public works rose from Rs. 8,69,508 to Rs. 10,68,844, the largest increase occurring under the head "Buildings." The office buildings of Maniktala and Cossipore-Chitpur were extended The percentage of outlay on public works to the total expenditure ranged from ·4 in Kurseong to 43·1 in Meherpur.

Loans.

460. Altogether 44 municipalities were in debt to Government at the end of the year, their total liabilities amounting to nearly Rs. 42 lakhs. Midnapore, Hooghly-Chinsura, Uttarpara, Krishnagar, Santipur, and Darjeeling took loans aggregating Rs. 4,29,400, while Pabna and Mahespur fully liquidated their debt.

Audit of accounts and embezzlements.

461. The accounts of almost all municipalities, except Jalpaiguri, Cossipur-Chitpur, Debhatta and Baduria, were audited during the year. Two cases of embezzlement in Satkhira were brought to light and the tax daroga and the collecting sarkar were criminally prosecuted, with the result that the former was acquitted and the latter convicted. The municipal commissioners of Baraset are taking steps to realize Rs. 203 misappropriated by their head clerk and accountant. Audit reports unfortunately receive too little attention. It is, perhaps, too optimistic to expect that the Examiner of Local Accounts should be welcomed as the guardian of the public funds, but it is unfortunate that his advent should be frequently regarded as a visitation, resulting only in long and unprofitable explanations. In the United Kingdom, the members of local bodies are personally liable for the proper use of the public funds and it is doubtful if audit of local accounts can ever be really effective unless a more definite responsibility can be laid on the municipal board.

General remarks.

462. The total ordinary income of Howrah municipality rose from Rs. 13 lakhs to nearly Rs. 16 lakhs. The increase was mainly due to a general revision of assessment in certain wards. Continuous revision of assessment under the Calcutta Municipal Act has been introduced and two out of the ten wards are reassessed every year. The expenditure also showed an increase of Rs. 76,528, chiefly under the heads "water-supply" and "roads" and amounted to Rs. 12,62,192. The commissioners have purchased a water-cart, propelled by mechanical power, to replace some of their old-fashioned bullock-drawn vehicles. The conservancy administration was managed by the ward committees as formerly; there were difficulties in recruiting sweepers and mehtars. The conservancy of Howrah is not

its strong point, but in so large a town, nothing but a water-borne sewerage system can prove satisfactory. The scheme drawn up by Mr. E. E. Biss for the improvement of primary education was considered by the municipal commissioners; it was decided that the time was inopportune for the imposition of an educational cess. Measures were, however, taken to give the scheme a trial by starting two schools with the existing resources of the municipality, supplemented by an adequate Government grant.

The health of the town showed some slight improvement; the birth-rate was 22·05 per mille against 20·20, while the total number of deaths was 6,419 against 7,713 in the preceding year. The death-rate among infants also decreased ((1,162 against 1,219). The audit disclosed considerable slackness in the collection department. A new collector has been appointed and most of the defects remedied. It is believed that no defalcation took place.

Administration.

463. The administration of the Burdwan municipality was taken over by an elected municipal board at the close of the year, the board is reported to have been working satisfactorily. The town is very malarious and the Census of 1921 showed a considerable decrease in the population. Kala-azar has also made its appearance in the town. A scheme for the improvement of the water-works has been sanctioned since the close of the year. The supply of good drinking water at Asansol and Raniganj is very inadequate. As regards the municipalities in Bankura, the Magistrate reports an absence of initiative and zeal in the cause of municipal progress, and states that the commissioners have hardly developed the spirit of local patriotism so as to take any real pride in the administration of their respective municipalities. The finances of the Midnapore municipality are seriously embarrassed. Special funds have been illegally diverted to general purposes; a private donation to the Midnapore College has been misapplied in this manner. These grave irregularities have been commented on by the Examiner of Local Accounts year after year, but no attempt has been made to set matters right. The collections are unsatisfactory and additional funds are necessary to complete the water-supply scheme.

The small municipalities of Chandrakona and Kharar continue to remain unsatisfactory. Chandrakona was distinguished by its dissensions while in Kharar an attempt was made to stop the payment of municipal taxes. This took the colour of non-co-operation and got the support of local non-co-operators, but in its origin this movement is said to have been due to more personal causes. In Hooghly-Chinsura the collections were not satisfactory, the outstanding balance being Rs. 22,577. The municipality is unwieldy, parts of the town are apt at present to be neglected with the result that an agitation is on foot to partition the municipality.

Collections improved in Bansberia; a jute mill having been erected in an area covered with jungle, considerable improvement has been effected both to public health and municipal income.

In Champdani, the commissioners generally showed a keen interest in municipal affairs and the municipality was free from the baneful influence of party faction, which is said to paralyze municipal activities in Kotrung.

The administration of the Bhadreswar, Rishra, Konnagar, and Uttarpara muncipalities is described as being satisfactory. About one-fourth of the municipalities of the Presidency Division are in the 24-Parganas District and they include examples of most types of municipality in Bengal. Some are large suburban towns in which a standard of administration similar to that of the metropolis is needed, others are progressive mill towns, and the rest are overgrown villages in which the conditions are more rural than urban.

The following extracts are quoted from the report of the 'District Magistrate:—

"The year on the whole has been one of comparative inactivity, and it is very difficult to point to any important achievement in it. There are far too many bad municipalities. Most of the bad municipalities suffer

from insufficiency of funds, even if the best use is not made of the resources that are available. On the other hand there are municipalities, like Cossipore-Chitpur, Baranagore, Titagarh, Bhatpara, Naihati, and Garden Reach whose funds are considerable, and in all of them it is gratifying to be able to note that in spite of occasional lapses, partly feeling is not allowed to rise superior to public interests, and that these municipalities are steadily endeavouring to improve the standard of administration. Among the smaller municipalities Baruipur continues to do the best it can with its limited resources.

" The anti-malarial societies in Panihati made an interesting experiment during the past year in maintaining a societies' doctor and establishing a chemist's shop, the shares of which are held by the members of the societies. The financial results of the experiment are said to be satisfactory, but at present the scheme is only in an experimental stage."

"The need for more effective supervision of the municipal staffs still continues pressing. Even the best municipalities furnish extraordinary examples of the lack of supervision over the subordinate staff.

It is satisfactory to find that in Garden Reach and Cossipore-Chitpur some attempt to work the *bustee* sections for the improvement of insanitary (*bustee*) areas has been made."

The Magistrate of Nadia reports that the public health in all the municipalities of that district was on the whole good. Kushtia is said to be the best-managed municipality in the district, while Nabadwip suffered from personal rivalries. The administration of the municipalities in the Murshidabad district is said, so far as funds permitted, to have been satisfactory, except in Azimganj where party faction of a violent type was unfortunately rampant. Better results are, however, expected from the new board which has lately been formed. An interesting development in this town is the establishment of standing committees for the improvement of sanitation and street lighting. Khulna continues to give commendable attention to the question of water-supply and sanitation.

The Commissioner of the Division observes:—

" From my point of view, the principal feature of the year's municipal administration has been the comparative neglect of vital statistics and the struggle of rural municipalities to improve their water-supply, and of the few municipalities, which already have water-works, to keep them in order. Neither municipal commissioners nor their executive staff are expert mechanics, and for the proper care of the plant and machinery they have to depend on the reputed or *soi-disant* experts whom they can attract to take charge of the management.

"In regard to the other than the "best" municipalities, which are in a minority, I cannot write with enthusiasm of the public spirit or the administrative energy exhibited by the local commissioners, nor can I say that the best and most influential men in the community have yet learnt to take a laudable interest or an active part in the management of their local affairs. Despite the large measure of municipal autonomy I am unable to chronicle any municipal development or even the appearance of municipal enterprise.

"In all the municipalities of the division, large and small, too often some one is needed to set local life in motion, to keep the local executive active in every direction. Great is the *vis inertiæ* to be overcome, the repugnance to self-help and to self-taxation; great the practical distrust of science; and great the number of persons interested in offending against sanitary laws, even amongst those who must constitute the local authorities to enforce them."

The Commissioner of the Dacca Division observes that the administrative of the larger municipalities is somewhat disappointing. Though some good work was done in Dacca, the record was marred by bad collections. The Barisal administration lacks in strictness and vigour; the management of its water-works was inefficient and caused much dissatisfaction. The Jhalakati and Nalchiti municipalities were well administered. Bad roads and bad drains are the marked features of Mymensingh, while the outstanding liabilities exceeded the closing balance. Jamalpur is handicapped

by the inclusion of a large semi-rural area, which might be more suitably placed under union boards. Sherpur is said to be efficiently administered. Its collections—a good test—are very satisfactory. The funds of the Faridpur municipality show a heavy deficit and the new board have earnestly faced the problem of cutting down expenses to improve their financial position.

The Cox's Bazar municipality continues, it is said, to do satisfactory work so far as its income permits. In Chittagong, however, the resources of the municipality were neglected. The collection of rates was bad and inefficient, although roads, water-supply, conservancy and education all called for a vigorous policy of improvement. The Comilla filtered water-supply scheme was approved by Government. Thanks to the liberality of a local Marwari gentleman (Babu Jagannath Madan Gopal Mahata), a suitable site comprising eight bighas of land was acquired for a dispensary building at Brahmanbaria and the foundation-stone was duly laid. Noakhali is being washed away, and though there is much to be done, the decreasing municipal income and the uncertain fate of the town are a bar to any vigorous measures of improvement.

The Magistrate of Rajshahi finds little to commend in the administration of Rampur-Boalia. The financial position of the Pabna municipality is unsound; its current liabilities exceed the amount outstanding from taxes. The normal municipal services are to some extent being carried on by means of credit and the only remedy for the present financial embarrassment is an increase in taxation. In English Bazar, municipal affairs are no brighter; collections were bad and there was no money for road repairs. No steps were taken for the general revision of assessment which was due in the year. The incidence of taxation in Rampur-Boalia, Pabna, and English Bazar is especially low, and these are, perhaps, the worst administered municipalities in the division. Progress is impossible in these municipalities without an increase of income, whether by raising the rates or by more stringent assessment. The Darjeeling municipality fully maintained its reputation as a progressive municipality. Improvements were effected in the water-supply, drainage, electric lighting, and municipal buildings, while by the purchase of the Lower Beechwood Estate the municipality will be able to take up in the future a housing scheme to meet the growing demand for the provision of houses of a cheap and sanitary type. Kurseong has completed a sewerage and drainage scheme which is, however, not working altogether satisfactorily.

Calcutta Corporation.

Calcutta Municipality.

464. As the Report on the Administration of the Calcutta Municipality for the year 1921-22 had not been received at the time of going to press it has not been possible to incorporate a chapter on the working of the Calcutta Corporation in 1921-22 in the present Administration Report. The information will be published in the Administration Report for 1922-23.

Calcutta Improvement Trust.

[Report on the operations of the Calcutta Improvement Trust for 1921-22.]

Income.

465. The income of the Calcutta Improvement Trust is chiefly derived from the duty on transfers of property, a terminal tax on passengers by railway or inland steam vessels, a customs duty on the export of jute, contributions from the Calcutta Corporation and the amounts realized from the sale of surplus lands. The land boom reached its height in 1920 and as speculation in land gave place to more legitimate investment, there was a heavy decline in the receipts from the duty on the transfer of property, which fell from Rs. 13 lakhs in 1920-21 to Rs. 6¾ lakhs in the year under report. The latter figure was

nevertheless double the average receipts in the pre-boom years (1912-12). The slump in the jute trade naturally reacted on the duty levied on that commodity; the receipts were nearly Rs. 2 lakhs less than in 1920-21. The terminal tax showed practically no decrease and yielded over Rs. 2 lakhs. The Corporation contribution has steadily grown, and amounted to Rs. 11,12,833 as against Rs. 7,37,000 in 1912-13. During the year the Trust completed the construction of 9½ miles of road of which 3⅛ miles were handed over to the Calcutta Corporation. The construction of another 9½ miles was in progress. The operation of the Calcutta Rent Act caused difficulty in evicting tenants from houses acquired by the Trust and consequently delayed the demolition of properties for the construction of roads. But receipts from house rents materially increased.

Improvement Schemes.

466. One large and three small improvement schemes including the widening of Dalhousie Square West were sanctioned. Nine schemes were completed or almost completed. Ten including Shambazar Park and the Central Avenue to the south of Bow Bazar Street were in progress. One improvement scheme and three projected public streets dealing with the Burrabazar area were sanctioned after the close of the year. The questions of the removal of the Mint and the improvement of the Strand Bank lands held under lease by the Port Commissioners are intimately connected with the improvement of Burrabazar. The local Government have already made proposals to the Government of India for the removal of the Mint, but no decision has yet been reached.

Open spaces.

467. The construction of a large park (comprising 225 bighas) in Cossipore-Chitpur, is in progress. Rs. 35½ lakhs out of an estimated cost of Rs. 47½ lakhs was expended in 1921-22 on land acquisition. One and a half bighas of land have been acquired at a cost of nearly Rs. 3¼ lakhs for a small square in the congested area surrounding Ratan Sarkar Garden Street. The Ram Kessen Das Lane Square comprising 2 bighas 11 kottas was completed.

Re-housing.

468. Two Maniktala sites, of which 25 bighas, capable of accommodating about 3,100 people, are available for letting purposes, have been acquired and prepared for building sites.

In Kerbala Tank Lane, nearly 4½ bighas was acquired at a cost of Rs. 2,47,233. The construction of 39 houses to be let temporarily to persons displaced by improvement schemes has been almost completed.

Rs. 7,29,352 was spent in purchasing land in Bow Street; tenement houses with accommodation for about five hundred people will be let to Anglo-Indians displaced by the construction of the Central Avenue.

Thirty-six bighas was acquired in Paikpara Road at a cost of Rs. 6,68,230 for re-housing persons displaced by the Trust in Northern Calcutta and the acquisition of an additional 147 bighas estimated to cost Rs. 36,65,000 has since been sanctioned.

Projects of public streets.

469. In order to prevent future improvement schemes being blocked by the erection of new buildings, 7 projected public streets were aligned and sanctioned.

Finance.

470. The income and expenditure under the Capital Account were respectively Rs. 66¾ lakhs and Rs. 106 lakhs and those under the Revenue Account Rs. 35¾ lakhs and Rs. 11⅜ lakhs. The deficit in the Capital Account was met from the Revenue Account which closed with a net balance of Rs. 41 lakhs. The borrowing capacity of the Trust has been much reduced by the high post-war rate of interest at which money must now be borrowed, and it has been necessary for the Trustees to take very careful stock of their resources and to overhaul their programme of work. Prior to 1920 it had been possible to finance the operations of the Trust from its initial capital and its growing revenues. A loan of Rs. 50 lakhs was however taken in 1920 while the Trust has now, with the southern section of the Central Avenue and the improvement of Burrabazar, entered upon the most expensive part of its programme. The outlay on land acquisition for these two projects will amount to a very heavy sum, while recoveries on account of the sale of surplus lands will be slow. The acquisition charges are moreover now increased by the additional 15 per cent. solatium. It is estimated that

after providing for the service of loans to the amount of Rs. 1½ crores, raised or contemplated in 1922—24, and for normal recurring charges, the Trust will have roughly an annual surplus of Rs. 8 lakhs—even if its receipts from taxation do not increase—to meet the additional loan charges which will inevitably be required for the improvement of Burrabazar. With this surplus, a loan of roughly a crore could be raised. The net cost of the improvement of Burrabazar, which it is proposed to effect by a series of separate improvement schemes, may probably be kept within this figure and it will not be unduly optimistic to anticipate that the Trustees will be able to complete their important and comprehensive frame-work for future Calcutta with the resources at their command. The present assets of the Trust in the shape of surplus lands were estimated recently at Rs. 95 lakhs exclusive of open spaces (valued at Rs. 75 lakhs), on which no realization is possible.

In arriving at the margin of borrowing capacity available for the improvement of Burrabazar, credit for only Rs. 30 lakhs has been taken with the result that the Trust in perhaps 2 years' time may have a further capital reserve of Rs. 65 lakhs to assist in its programme of works.

District Boards.

[The Reports from the Commissioners of Divisions on the working of District Boards in Bengal during the year 1921-22.]

District Boards.

471. Towards the end of the year, final arrangements were made for replacing the Darjeeling Road Cess Committee by a District Board, which was actually constituted in April 1922.

Local Boards.

472. There were 75 Boards with 984 members. Where Union Boards have been formed, they are usually entrusted instead of the Local Boards with the repair of village roads and with the control of pounds. If Local Boards are to have any vitality, however, they must have responsible functions and the administration of adequate funds. So far the addition of a new link in the chain of local authorities has, perhaps, tended to impair the utility of the Local Board. It has new duties in supervising the activities of the Union Boards, but a supervisory function such as this, is barely sufficient justification for its existence. It is clear that the place and functions of the three rural local authorities will require careful definition, when the Local Self-Government Act is amended.

Village Self-Government

473. At the end of 1921, nearly 1,600 Union Boards were in existence. When the lapse of time enables the early years of the reforms to be viewed and appraised with a proper detachment, it is possible that the creation of an atmosphere of suspicion and distrust towards these institutions will be regarded as one of the non-co-operators' gravest disservices to India. Union Boards have been represented as mere instruments of new taxation instead of potenital agencies for the proper organization of village resources. In one case, a vice-presidents' house was burnt down, while a Union Board dispensary and office building shared the same fate.

There has been a serious set-back to village self-government; the Act was withdrawn from the Midnapore District, and the Boards replaced by the old chaukidari panchayets, while in other districts, the introduction of the Act has been postponed. At the close of the year there were 1,090 of these Boards. Nevertheless, in spite of a discouraging political atmosphere, many Boards have done useful work. Some Union Board dispensaries have been founded, several wells have been constructed, and in the Howrah district alone, over 400 tanks were cleared of rank vegetation. A few Boards have distributed quinine and other medicines gratuitously to the poor.

A considerable number of Union Benches and Courts have been established. In Tippera they are reported in many cases to have done "remarkably good work," and the privilege of possessing a Union Bench is said to be highly prized.

On the other side of the ledger must be set down apathy on the part of some presisents and of more members, party faction and some natural reluctance to enforce the provisions of the Act. In many cases, budgets have not been prepared in time and meetings have lacked a quorum.

On the whole, the Minister for Local Self-Government is disposed to think that these infant institutions deserve congratulation for the manner in which they have weathered the storm, and while in more backward districts he feels that it would be most unwise to force the pace by the too rapid extension of the Village Self-Government Act, he holds firmly to the opinion, which many facts support, that these Boards will ultimately play an important part in the scheme of local self-government.

One hundred and eighty-five Union Committees—a kind of half-way house between the chaukidari panchayet and the Union Board—continued to function in many districts. Their total receipts amounted to Rs. 1,27,220, of which Rs. 88,385 was expended, mainly on roads, sanitation, and water-supply. The area of a Union Committee shows wide variations; in the Bankura district, for example, it ranges from two square miles to nine, in the Rajshahi Division from about five to sixteen and in the Faridpur district. from five to seven square miles. In one district Union Committees, with a population ranging from 5,000 to 10,000, had each an average revenue of about Rs. 300. A committee administering this paltry sum over so large an area and for so large a population, could not be expected to bring much interest or enthusiasm to its impossible task. Most Union Boards, however, have only slightly ampler funds. The 129 Union Boards of Dacca and 23 Boards in Faridpur, which assessed union rates under section 37(*b*) of the Village Self-Government Act spent Rs. 40,031 on roads, Rs. 16,672 on water-supply, and Rs. 11,301 on drainage and conservancy, *i.e.*, roughly, Rs. 400 each.

Finance of District Boards.

474. The receipts amounted to Rs. 116·5 lakhs against Rs. 122·7 lakhs in 1920-21, the decrease being due to reduced receipts under the head of "Deposits and Advances." The disbursements, however, increased from Rs. 122·7 lakhs to Rs. 123 lakhs, owing to larger expenditure on medical relief. The closing balance amounted to Rs. 28·2 lakhs (of which Rs. 17·1 lakhs were in cash) against Rs. 34·8 lakhs in 1920-21.

Taxation.

475. The incidence of taxation was two annas 8 pies a head, varying in different districts from 1 anna 8 pies to 8 annas 1 pie.

Education.

476. The expenditure (Rs. 28·4 lakhs) was very slightly below that of the previous year. Of this amount, Government contributed Rs. 16·3 lakhs, while school fees yielded Rs. 4 lakhs. District Boards from their own funds contributed Rs. 11·7 lakhs. The number of upper and lower primary schools increased from 39,078 to 39,688, of which 3,128 were entirely maintained by the Boards, while the rest received grants-in-aid: 9,495 of these institutions were girls' schools, against 9,142 in 1920-21 and 8,542 in 1919-20. The Commissioner of the Burdwan Division writes appreciatively of the excellent educational work which the American Baptist Mission is doing amongst the Sonthals of Midnapore. One Sonthal girl succeeded in winning a departmental middle scholarship. The Chairman of the District Board of Faridpur states that the extension of primary education on the lines suggested by Mr. Biss has met with much opposition:—"This is mainly due to the non-co-operation movement. The people are bitterly opposed to any form of taxation, direct or indirect." Bakarganj is equally pessimistic as regards the financial aspect of the problem. The Malda District Board is utilizing an Imperial grant received originally for the construction of panchayet union schools for working out Mr. Biss' scheme in two unions, half the recurring cost to be met by the Board and half from provincial revenues.

Free primary schools (29) have been opened under three Union Boards in Khulna, and an education cess is to be levied for the maintenance of the schools.

The importance of technical and industrial education has not been overlooked. The Khulna Coronation Technical School had 30 boys—as against 22 in 1920-21—on its roll, of whom 18 were specializing in carpentry,

while 5 belonged to the blacksmith and the rest to the tinsmith class. The sale proceeds of the articles manufactured in the school amounted to Rs. 3,468 against Rs. 1,082 in the preceding year. The peripatatic weaving school in Pabna is said to be popular; 55 students passed out in the year under report. The Mymensingh Technical School continued to specialize in cane and bamboo work, brass-casting, and in fitter's, blacksmith's and tinsmith's work. The number of pupils increased from 43 to 57. In the Burdwan Division special attention was given to weaving schools.

Public health and medical relief.

477. The most striking feature of recent District Board administration is the wider recognition of medical needs and of the importance of public health. The expenditure under these heads rose from 11·7 lakhs to Rs. 13·7 lakhs. Medical relief was provided primarily through 322 dispensaries maintained by the Boards and 249 in receipt of grants-in-aid as against 304 and 226, respectively, in 1920-21.

The number of State dispensaries is small and the resources of western medicine are at present by no means easily available to a rural population of 42 millions. Newly qualified medical graduates tend to concentrate in Calcutta, since the mufassal offers them ordinarily a very precarious livelihood. Nadia gave small monthly subsidies to eight independent practitioners, to enable them to carry on, while building up a private practice. Other districts are experimenting on similar lines and Jessore has actually been able to withdraw its subsidies from a few established practitioners. No wide extension of the subsidy system is for the moment practicable, but if the Union Boards can be induced, under the guidance and with the help of District Boards to accept some responsibility for medical relief within the local area, a close network of dispensaries, housed in a modest way but administered by a competent doctor, will be feasible.

It can never be possible for Government to provide free medical relief for the teeming population of rural Bengal, but the Minister is strongly of opinion that as the provincial finances improve, it is essential to stimulate and encourage local endeavour by judicious grants-in-aid. He has for the present been most reluctantly compelled to curtail the practical application of this principle, but the readiness of several Boards, particularly Dinajpur, Birbhum, and Howrah, to accept a lead in this direction augurs well for the future.

Curative medicine comes into close touch with preventive medicine or the science of public health on the outbreak of epidemic disease. Cholera each year receives increasing attention. Several itinerant doctors were engaged by different Boards to cope with serious outbreaks of this fell disease and the Director of Public Health may justly congratulate himself on the gradual evolution of a "public health conscience" in Bengal. The causes of cholera are becoming common knowledge in the mufassal, and the central department of public health is constantly asked to assist the local authorities in the organization of preventive measures. Several Boards are making vaccination free and this enlightened policy, if accompanied by a vigorous vaccination campaign, would immediately effect a large reduction in the mortality of Bengal.

The District Boards of Dacca and Mymensingh are said to have reduced their expenditure on vaccination. "As there was no outbreak of small-pox in either of these districts during the year under report, no paid vaccinators had to be appointed for free vaccination, as was done in the preceding year." But if a temporary immunity breeds security and the relaxation of preventive measures, these local areas and ultimately the province will inevitably suffer from the ravages of an alarming small-pox epidemic amongst an unvaccinated population. A skeleton public health organisation is now possessed by practically every District Board and the Minister is confident that this staff, though individual officers may lack the necessary inspiration and enthusiasm and though revenues may be exiguous, can and will amply justify its creation by the better organization of preventive measures against disease, by simple propaganda to dispel the appalling ignorance which entails a heavy toll of infant lives, by the supervision of vaccination, and by the improved compilation of vital statistics

Veterinary.

478. It is a matter of regret that expenditure on this important branch of work fell from Rs. 1,36,000 in 1920-21 to Rs. 1,31,000. The decrease is small, but apart from medical relief, the improvement of water-supply and roads, and the prompt arrest of cholera epidemics, there is, perhaps, no direction in which expenditure of local funds among an agricultural population is more amply justified, than in the provision of good veterinary treatment and any diminution in the present small outlay on veterinary work is to be deplored. The Chairman of the Birbhum District Board states that the work of the veterinary assistants is much more appreciated by the public than in the past. In Midnapore and Rajshahi veterinary hospitals were opened at sadar. The commissioners of the Dacca and Presidency Divisions state that the veterinary assistants, itinerant and stationary, did much useful work and their services are beginning to be properly appreciated by the raiyat. The inoculation of cattle against disease is gradually winning favour and it is deplorable that at this juncture, the Hooghly District Board should propose to abolish the posts of two of its three veterinary assistants.

Civil works.

479. The expenditure on communications fell from Rs. 37·3 lakhs to Rs. 32·9 lakhs. This is largely due to lapses of budget allotments, owing to works not being promptly executed. In the 24-Parganas, the Ganga Saugor Road, from Kachubaria to Mansadwip (16 miles) was completed. The Khulna District Board spent Rs. 15,000 on a toll-bar bridge over the Betna River, and nearly Rs. 30,000 on the construction of roads in accordance with a quinquennial programme. In Jessore the metalled roads are said to be good. In Midnapore, in some parts of which a laterite soil renders repairs comparatively easy, the roads are said to have seriously deteriorated. The Hooghly District Board was vigilant in preventing encroachments on its roads, and the Burdwan Board is becoming alive to the necessity of taking active measures in this direction.

Watersupply.

480. This is the gravest problem immediately confronting the District Boards. It is said that in Burdwan a large proportion of wells are dry in April and May, the months in which they are most needed, and a serious shortage of water for drinking purposes occurred in most districts last hot weather.

The expenditure on water-supply in the current year was only Rs. 5·14 lakhs against Rs. 5·8 lakhs in 1920-21. This expenditure is still met entirely from revenue, but it is obvious that an extensive programme can only be financed by means of a loans policy. The District Board of Birbhum is prepared to take a loan of Rs. 1 lakh for the re-excavation of tanks and the sinking of masonry and tube wells, while Khulna (one of the most progressive Boards) also recognizes the advantages of a loan policy. In normal times, Government would readily have sanctioned those proposals, but the depletion of the provincial balances and the necessity of providing agricultural loans on a large scale to the raiyats of Rajshahi and Bogra, who suffered from the floods, has rendered it necessary to keep these applications in temporary abeyance. The Minister is, however, disposed to agree with the Commissioner of the Rajshahi Division that the solution of the water-supply problem lies in the power of the Union Boards alone.

The District Boards, even with some considerable accession of revenue and the adoption of a loans policy, would still find it impossible to bring an adequate water-supply within the reach of the vast masses for whose wants they provide. They can guide, stimulate and subsidize the Union Boards, but they are undoubtedly too large a unit of administration to undertake direct responsibility for the water-supply of each village. Government recognize that it is essential to take fresh stock of the position and to attempt to propound a definite policy for the consideration of local authorities, and the Minister proposes shortly to call a conference of District Board representatives of this purpose.

Closing balances.

481. There was a slight decrease, but Rs. 17·10 lakhs is still an unduly large proportion on the total receipts of Rs. 116·5 lakhs. There was a heavy balance in Burdwan (Rs. 3,07,803) and Midnapore (Rs. 2,43,409). In the case of Burdwan, these heavy accretions are in part explained; in Midnapore the balances are due mainly to delay in undertaking sanctioned works.

In view of the difficulty in meeting their expanding duties from current revenues, it is desirable that District Boards with heavy closing balances should prepare careful programme for their disbursement, whether by utilizing them for capital works and thereby economizing their borrowing capacity, or for minor works, which could not be financed from loans.

General remarks.

482. It is certain that the District Boards cannot attain to their full stature until their finances are placed on a more satisfactory basis. They are anxious to extend their system of medical relief, to find some solution to the water-supply problem which presses so heavily on them, to improve communications, which tend to deteriorate with so many new claimants on the common purse, and to consolidate the experiments made in public health organization. Like the central department, they are blocked at every turn by the want of funds, and so far from enlightened enterprise having any scope, they find it difficult to carry on the budgets of the past. There is abundant vitality in these Boards and frequently enthusiasm in their Chairman. The time has come when everyone is glad to be a member of the District Board. Under the new régime, the post is one to which considerable prestige and influence attach, and everyone who aspires to be of some local importance turns his eyes towards the District Board. It is not everywhere realized that, with the passing of the official Chairman, a change of considerable political importance has been effected. The policy of the Boards must, for some time to come, depend largely on the Chairman, and by giving the Board the right of election, Government have transferred to popular control an administration which closely touches the masses. The Minister is of opinion that on the whole the non-official Chairmen and their colleagues have risen to their high responsibilities and he is glad to find that several of the district officers write appreciatively of the interest they have shown in their important duties.

Marine Department.

[(1) Annual Report of the Port Officer, Calcutta, 1921-1922.
(2) Annual Report of the Port Officer, Chittagong, 1921-1922.
(3) Annual Report of the Shipping Offices in Bengal, 1921-1922.
(4) Administration Report of the Agent for Government Consignments, 1921-1922.
(5) Administration Report of the Port Commissioners, Calcutta, 1921-1922.
(6) Administration Report of the Port Commissioners, Chittagong, 1921-1922.
(7) Annual Report of the Bengal Steam Boiler Commission, 1921.
(8) Administration Report of the Howrah Bridge, 1920-1921.
(9) Annual Report of the Bengal Smoke Nuisances Commission, 1921.]

PORT OF CALCUTTA.

Bengal Pilot Service.

483. The number of pilots, including Leadsmen Apprentices, in the Bengal Pilot Service at the end of the year was 65 against the sanctioned strength of 74. Three Branch Pilots retired during the year. The system of guaranteed minimum remuneration to the Pilots was continued during the year.

Vessels piloted.

484. The number of vessels piloted inwards was 1,210 with a gross tonnage of 5,703,641, and outwards 1,236 with a gross tonnage of 5,813,655. Five vessels were detained at the Sandheads for want of pilots against 24 last year.

Pilotgae receipts.

485. The receipts for pilotage fees for the year were Rs. 11,83,916 against Rs. 13,79,343 and Rs. 10,80,472 for the two preceding years.

Casualties to vessels.

486. There were 27 cases of grounding and one case of collision against 26 groundings and two collisions during the previous year.

Courts of Enquiry.

487. Sixty-four preliminary enquiries were held to investigate casualties to sea-going and inland vessels and eight were referred to special marine courts.

Examinations.

488. One hundred and forty-seven candidates appeared for colonial and home-trade certificates of competency as Master, Mate and Engineer of sea-going vessels, of whom 71 passed. 171 candidates out of 497 obtained certificates of competency as Master, Serang Engineer and Engine-driver under the Inland Steam Vessels Act, I of 1917.

Four candidates appeared at the examination for the grant of licenses to pilot steam tugs, Port Commissioners' vessels and vessels plying between Calcutta and Chandbally, and all of them passed.

PORT OF CHITTAGONG.

489. The total number of vessels that entered the port was 813, of which 258 were sea-going steamers, 519 inland steamers and 36 native sailing vessels with a total gross tonnage of 677,725. The total number of departures was 814, including 258 sea-going steamers, 524 inland steamers and 32 native sailing vessels with a total gross tonnage of 678,235. **Arrival and departure of vessels.**

490. There was one case of grounding and two cases of collision. One special marine court of enquiry was held during the year. **Casualties to vessels.**

491. Two hundred and seven candidates appeared at the examinations for certificates of competency as Master, Serang, Engineer and Engine-driver under the Inland Steam Vessels Act, I of 1917, of whom 160 passed. **Examinations.**

SHIPPING OFFICES, CALCUTTA AND KIDDERPORE.

492. The revenue of the Shipping Offices amounted to Rs. 1,16,104 and the expenditure to Rs. 87,471 against Rs. 1,38,080 and Rs. 99,754, respectively, in the preceding year. **Finance.**

493. A comparative statement of the number of seamen shipped and discharged during the year under report and the previous year is gvien below:— **Seamen shipped and discharged.**

Shipped.

			1920-21.	1921-22.	Increase.	Decrease.
European	...	...	576	502	...	74
Indian	...	...	42,261	43,742	1,481	...
	Total	...	42,837	44,244	1,481	74

Discharged.

			1920-21.	1921-22.	Increase.	Decrease.
European	...	...	885	646	...	239
Indian	...	...	40,038	36,254	...	3,784
	Total	...	40,923	36,900	...	4,023

Thirty-six Anglo-Indians were shipped on European articles of agreement and 472 on Indian articles of agreement.

CHITTAGONG SHIPPING OFFICE.

494. The revenue of the Chittagong Shipping Office amounted to Rs. 246 and the expenditure to Rs. 1,024 against Rs. 846 and Rs. 780, respectively, in the previous year. **Finance.**

495. The number of seamen of all nationalities shipped and discharged during the year under report was 160 and 209, respectively, against 181 and 629 in the preceding year. **Seamen shipped and discharged.**

HEALTH OF THE PORT OF CALCUTTA.

496. The number of inward bound vessels inspected on the river and in docks after arrival was 699 and that of outward bound vessel inspected was **Inspection of vessels.**

1,231. The number of crew and passengers of both inward bound and outward bound vessels inspected and rejected during the year 1921 is furnished in the following table :—

		Passed.	Rejected.
Outward-bound vessels	Crew ...	106,476	141
	Passengers ...	115,343	211
Inward-bound vessels	Crew ...	82,285	...
	Passengers ...	107,465	...

Altogether 5,675 cargo boats were inspected by the Sanitary Inspector against 7,283 in the previous year.

Health of seamen—Europeans.

497. Fourteen deaths were reported to have occurred in hospitals during the year. The admission rate to hospitals for all causes calculated on arrival figures was 55 per mille. The death rate was ·68 per mille. There were 262 admissions for venereal diseases.

Asiatics.

498. According to the last census the Asiatic floating population of the port was 18,441. The total number of deaths reported during the year was 126 or 6·83 per mille, of which 13 were due to cholera, 34 to accidents, and 21 to drowning.

Infectious diseases.

499. There was no serious outbreak of any infectious disease during the year. Several cases of small-pox, cholera, measles and mumps occurred, but were promptly dealt with.

HEALTH OF THE PORT OF CHITTAGONG.

General.

500. The general sanitation of the port was, on the whole, good. No case of small-pox or plague was found in any of the vessels, incoming or outgoing, or vessels lying in the port. Only one sporadic case of chicken-pox occurred amongst the native crew of a foreign vessel. Three sporadic cases of cholera occurred among the lascars in the Port Commissioners' "Barge No. II" and Grab Dredger No. I, but subsided rapidly. No beri-beri or scurvy was found amongst the sailors in port.

Inspection of vessels.

501. The total number of ships inspected was 488 against 541 in the previous year. Of these coasting and foreign vessels numbered 445 and 43, respectively.

Stegomyia survey.

502. The investigation begun in the port last year into the prevalence of stegomyia mosquitoes and other varieties was continued throughout the year. Steps were taken to control their breeding and the results have been encouraging, and it seems possible to stamp out this kind of mosquito in ports, provided regular and continued measures are adopted.

AGENCY FOR GOVERNMENT CONSIGNMENTS.

Finance.

503. The total receipts of the Agency for the year were Rs. 4,59,462 and the expenditure Rs. 4,66,608.

Tonnage.

504. The tonnage dealt with was 29,028, including 251,042 packages.

The total value of freight bills passed by the Agency during the year was Rs. 2,80,910.

CALCUTTA PORT TRUST.

General features of administration.

505. The year under review was the first year in which a whole-time salaried Chairman was responsible for the administration of the affairs of the Trust.

Income.

506. The total income amounted to Rs. 2,19,17,042 during the year under report as compared with Rs. 2,66,08,032 in the previous year.

The drop in the exports of coal accounted largely for the decrease in the revenue.

Expenditure.

507. The expenditure on revenue account amounted to Rs. 22,40,39,556 against Rs. 2,51,61,205, the actual expenditure for the year 1920-21.

The following table shows the income and expenditure of the Calcutta Port Trust during the year 1921-22, together with the figures of the previous year.

	1921-22.				1920-21.				Difference between nett balance.	
	Income.	Expenditure.	Nett Revenue.	Nett Expenditure.	Income.	Expenditure.	Nett Revenue.	Nett Expenditure.	Increase, 1921-22.	Decrease, 1920-21.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
I.—Control	38,269	18,31,424	.....	17,93,155	24,931	17,37,143	.....	17,12,212	80,943	.....
II.—Jetties	33,54,281	20,21,279	13,33,002	.....	66,63,439	21,31,121	45,32,318	.....	.....	31,99,316
III.—Tea Warehouse	3,15,033	2,75,979	39,054	.....	3,97,251	2,21,540	1,75,711	.....	.....	1,36,657
IV.—Petroleum Wharf	4,72,514	49,512	4,23,002	.....	5,23,070	58,082	4,64,988	.....	.....	41,986
V.—Inland Vessels Wharves	4,30,641	2,78,665	1,51,976	.....	4,35,479	2,91,113	1,44,366	.....	7,610	.....
VI.—Rentable Lands and Buildings ...	23,40,451	2,50,668	20,89,783	.....	23,24,085	1,99,205	21,24,880	.....	.....	35,097
VII.—Port	8,63,140	14,25,162	.....	5,62,022	8,83,550	13,07,245	.....	4,23,695	1,38,327	.....
VIII.—Port Approaches	7,44 404	19,98,028	.....	12,53,624	7,64,596	14,52,222	.....	6,87,626	5,65,998	.....
IX.—Railway	19,76,180	28,20,522	.....	8,44,342	22,21,477	21 00,805	1,20,672	.....	.....	9,65,014
X.—Wet Docks	55,00,435	56,04,021	.....	1,03,586	64,34,769	51,86,848	12,47,921	.....	.....	13,51,507
XI.—Dry Docks	5,01,604	1,70,957	3,33,647	.....	4,65,186	1,37,787	3,27,399	.....	6,248	.....
XII.—Ferry Service	6,90,790	6,92,254	.....	1,464	5,99,246	5,92,206	7,040	.....	.....	8,504
XIII.—River Dues	43,87,272	.....	43,87,272	.....	44,66,762	.....	44,66,762	.....	.....	79,490
XIV.—Special War Surcharges	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous	.....	.....	.....	.....	3,056	.....	3,056	.....	.....	3,056
Sale of Unserviceable Materials	57,019	.....	57,019	.....	15,259	.....	5,259	.....	51,760	.....
Contribution from Howrah Bridge	27,084	.....	27,084	.....	25,762	.....	25,762	.....	1,322	.....
Interest on Revenue Reserve	81,679	.....	81,679	.....	81,679	.....	81,679	.....	.....	.....
Haulage Charges	77,965	.....	77,965	.....	91,561	.....	91,561	.....	.....	13,596
Difference on Exchange	37,327	.....	37,327	.....	.....	2,26,213	.....	2,26,213	.....	2,63,540
Interest on Deposits	17,954	.....	17,954	.....	1,86,874	.....	1,86,874	.....	.....	1,68,920
Interest and Sinking Fund Charges	.....	63,35,137	.....	63,35,137	.....	62,60,366	.....	62,60,366	74,771	.....
Contribution to Vessels Replacement Fund ...	.....	2,50,000	.....	2,50,000	.....	5,00,000	.....	5,00,000	.....	2,50,000
Depreciation of Securities of Revenue Reserve Fund.	.....	17,643	.....	17,643	.....	1,52,807	.....	1,52,807	.....	1,35,164
Depreciation of Securities of Vessels Replacement Fund.	.....	.....	.....	.....	.....	27,525	.....	27,525	.....	27,525
Depreciation of Securities of Fire Insurance Fund	.....	90	.....	90	.....	69,113	.....	69,113	.....	69,023
Reserve Fund for Depreciation of Securities of Provident Fund.	.....	18,215	.....	18,215	.....	7,702	.....	7,702	10,513	.....
War Bonus	.....	.....	.....	.....	.....	2,162	.....	2,162	.....	2,162
Appropriation to meet Depreciation of Sinking Fund Investment.	.....	.....	.....	.....	.....	25,00,000	.....	25,00,000	.....	25,00,000
Total ...	2,19,17,042	2,40,39,556	90,65,764	1,34,29,278	2,66,08,032	2,51,61,205	1,40,16,248	1,25,69,421	.....	.....

CHITTAGONG PORT TRUST.

Income. 508. The ordinary income of the Port Trust for the year under report amounted to Rs. 4,61,452 as compared with Rs. 4,41,645 in the preceding year.

Expenditure. 509. The ordinary expenditure of the Port Trust for the year amounted to Rs. 6,41,766 against Rs. 9,00,553 in the preceding year.

There was no capital expenditure on works during the year.

Assets and Liabilities. 510. The value of the Port Commissioners' properties was estimated on 31st March 1922 to be Rs. 47,83,097 and their liabilities Rs. 28,317 plus an outstanding balance of loans from Government for revetment work amounting to Rs. 4,46,044.

The total value of foreign and coasting sea-borne trade was Rs. 770 lakhs, which represents a decrease of 1·92 per cent. on that of the preceding year.

HOWRAH BRIDGE.

Revenue account. Receipts and expenditure. 511. The year opened with a deficit on Revenue account of Rs. 2,27,509.

The income and expenditure of the bridge during the year amounted to Rs. 3,67,347 and Rs. 4,28,301 against Rs. 4,16,265 and Rs. 3,60,875, respectively, in the previous year. The year ended with a closing deficit of Rs. 2,88,463 on Revenue account.

The total number of accidents during the year was 21 as compared with 16, 37, 35 and 39 in the preceding four years.

During the year the bridge was opened on 306 occasions, of which 46 were day openings and 260 were night openings.

New Bridge. 512. The Committee of Engineers appointed by Government to consider the various schemes submitted for the new Howrah Bridge completed their report in February 1922 and the recommendations of the Committee are under the consideration of Government.

BENGAL STEAM BOILERS COMMISSION.

Inspection of boilers. 513. The Commission held 11 ordinary and 2 special meetings for the transaction of business during the year. The total number of boilers on the registers for Calcutta and other places within the jurisdiction of the Commission was 6,584 against 6,245 in the previous year. Altogether 5,912 boilers were inspected. One hundred and seventeen boilers were struck off the boiler registers as they had not been presented for survey for over five consecutive years or had been removed out of jurisdiction or condemned as unfit for further service.

Receipts and expenditure. 514. The total receipts and expenditure during the year were Rs. 1,56,748 and Rs. 1,41,451, respectively, as against Rs. 87,010 and Rs. 1,14,700 during the period from April to December of the previous year.

BENGAL SMOKE NUISANCES COMMISSION.

Meetings of the Commission. 515. The Commission held 12 meetings during the year for the transaction of business.

Inspections and observations. 516. The number of observations of smoke emission taken was 8,254 as against 7,514, and the number of factories visited for instruction, etc., was 3,122 against 1,995, during the previous year.

The average emission of smoke of the controlled grades expressed in terms of scale 6 rose to 1;6 minutes in the hour from 1·22, but it is not improbable that this unsatisfactory feature in the year's working would have been obviated, had the Smoke Nuisance Department been fully staffed.

Plans of 41 installations were examined and passed. References from various municipalities necessitating careful investigations were also dealt with by the Commission.

The increase in the number of complaints received from the public (71 against 48 in the previous year), reflects the public appreciation of the relief afforded by the activities of the department. The number of offences reported to owners of furnaces for departmental action was 1,107.

Prosecutions.

517. Statutory warnings were served in eight cases, and nine prosecutions were instituted, two against factories, two against bakeries and five in coke-making cases.

The number of electric motors installed was 321. The installation of a large number of gas appliances during the year made for improvement in the general condition of public health.

General.

518. One of the most noteworthy features of the activities of the department during the year was the success obtained through the combined efforts of the owners of rice-mills and the department in devising methods by which paddy husks could be used in furnaces as fuel. These methods were adopted as an alternative to closing down the mills on account of the scarcity and high price of coal, and resulted in a maximum of economy in working the mills combined with a minimum production of smoke.

CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

Agriculture.

[Report on the Agricultural Department, Bengal, for the year ending 31st March 1922.]

Administration.

519. Changes in personnel of the staff were comparatively few and were mainly confined to officiating arrangements consequent on the departure of officers on leave or deputation. Mr. G. Evans, C.I.E., held charge of the department throughout the year. Mr. K. McLean proceeded on combined leave for one year from the 18th October 1921 and Mr. J. N. Sarkar of the Bengal Agricultural Service continued to act as Deputy Director of Agriculture. Mr. R. S. Finlow, the Fibre Expert, who went on leave in April 1921, returned in February last. Mr. McLean acted as Fibre Expert till he went on leave in October 1921 and Babu Nirmal Chandra Basu, Assistant Fibre Expert, officiated during the remaining period of Mr. Finlow's leave.

Agricultural education.

520. During the session 1921-22, the Bengal students at Sabour numbered 35. Of these, 12 passed the final examination and 18 were promoted from the first to the second year class. The Sabour College has been closed since the end of the year and students from Bengal will have to seek admission in other provincial agricultural colleges until arrangements for such training can be made in this Presidency.

The scheme for the establishment of an Agricultural Institute at Dacca could not be carried forward for want of funds, but progress will be made as funds become available. The two experimental agricultural vernacular schools at the Dacca and Chinsura farms, which were opened in 1920 and 1921, respectively, for the training of *bonâ fide* cultivators' sons in up-to-date methods of agriculture combined with general education, continued to make good progress. The whole question of agricultural education was discussed at the Provincial Board of Agriculture in August 1921 and it was then decided to convert these two schools into secondary agricultural schools in order to give a higher form of training to the sons of peasant proprietors and to those who have a direct interest in the land. The curriculum is designed to train the students to farm their own lands or become demonstrators in the department or teachers in the elementary agricultural schools, which it is proposed to establish. At the Dacca school the second year class now contains 15 students, including 9 apprentices, recruited from men under temporary training on the farm. The first year class has been opened with 12 stipendiaries, and four others study at their own expense. At Chinsura there are 10 students in the second year and 11 new recruits in the first year class. The curriculum and arrangements are somewhat provisional at present and will probably require modification in the light of future experience. As referred to in last year's report, a scheme for establishing farm or elementary agricultural schools of a cheaper type was formulated by the Hon'ble Minister for Agriculture, and a memorandum on the subject was circulated among public bodies for consideration. The opinions received were discussed at a meeting of the Provincial Board of Agriculture after the close of the year and the scheme with certain modifications is now under the consideration of Government, and endeavours will be made to give effect to its provisions, when finally approved by Government, as speedily as funds permit.

Research and experiment.

521. During the year the research work of the department continued to make good progress in all its three sections, *viz.*, Fibres, Botanical and Chemical.

As usual, jute continued to receive the special attention of the Fibre Expert, although minor investigations were carried out in hemp, flax, and other fibres. Out of 559 single-plant cultures of *C. capsularis*, and a number of hybrid races under observation, only 10 have shown favourable indications.

But the standard new races R-85 and D-154, which were expected to prove superior even to the well-known *kakya Bombai*, as mentioned in last year's report, have sustained their reputation as excellent yielders, besides being immune from the attacks of *chlorosis*. With regard to *chlorosis* in jute, investigations in collaboration with the Economic Botanist were continued. There seems to be a connection between the development of the surface root system and the incidence of the disease, and liability to the disease is apparently transmissible from parent to progeny. Experiments were continued at Pusa on a new machine designed for extracting fibre from *sunn* hemp. With regard to flax, samples of the crop grown at Cawnpore were well reported on in London. Investigations were also made on a small scale into *sida* and *sisal*. In pursuance of a resolution passed at the meeting of the Bengal Legislative Council held on the 22nd February 1921, a committee was appointed in the following June to devise ways and means of removing that universal mufassal pest, the water-hyacinth. The committee's report, received after the close of the year, is now under the consideration of Government.

In the Botanical Section work on *aman* paddy was continued along former lines at Dacca, Chinsura, and Rangpur. Three recent selections were tested at Dacca against the much-reputed *indrasail* and proved to be very heavy yielders. At Chinsura a new variety, *dudsar*, was tested on a considerable scale and beat the popular local *nagra* by 14 per cent. Work on deep-water paddy was also carried on by the Second Economic Botanist, but will have to be continued for some years more before definite results can be expected. Experimental work on the cotton crop was conducted by the Second Economic Botanist mainly at Chinsura, Dacca, and Mymensingh. Cotton was tried as a winter crop at Dacca and Mymensingh, but did not do well as weather conditions were unfavourable. The experiment will be repeated this year. The Chemical Section showed a great deal of activity. A large number of soil samples from Government farms and demonstration centres were analysed and the results should prove useful in connection with the provincial soil survey which it is hoped eventually to complete. Numerous sugarcane analyses were also carried out. The Agricultural Chemist has also taken up the work on date-sugar commenced by Dr. Annett, while he was employed in this province. A number of tobacco analyses were carried out, the manuring requirements of the crop have been carefully studied, and preliminary experiments were made in flue-curing of the leaf and will be continued.

Seed distribution.

522. The keen demand for departmental jute seeds continued. The cultivators now thoroughly realize that these varieties yield 25 per cent. more than the local seed. Seed of the *indrasail* variety of *aman* and *kataktara* variety of *aus* paddy were also in great demand. The yellow *tanna* variety of sugarcane was so popular that it was impossible for the Government farms and private seed farms to cope with the demand for seed. The scheme drawn up by the Director last year of utilizing private agencies for the propagation and distribution of departmental seed met with a certain amount of success and contains great possibilities of future development. No less than 52 of these seed farms have been established in the province, the agencies utilized being private zamindars, agricultural co-operative associations, *khas mahal* estates, and Court of Wards' estates.

Experimental and district farms.

523. Owing to lack of funds, building work on most of the new farms could not be carried on. New farms at Barisal and Pabna were completed and the buildings at the Bankura farm are approaching completion. Work in all these three farms has, however, commenced. The district farm at Birbhum has been laid out, but the buildings are not yet ready. The laying out of the Murshidabad farm is in progress and work has been begun with temporary buildings. Land has been acquired for the farms at Faridpur and Dinajpur. Financial considerations have delayed the commencement of work on the Jalpaiguri farm at Mainaguri. The Burdwan Raj farm was made over to Government in October 1921 and is now being managed as a Government district farm. The farms at Gosaba (24-Parganas) owned by Sir Daniel Hamilton, and the Kalimpong Homes farm (Darjeeling) are now the only two private farms under the management of the department.

Agricultural Associations.

Agricultural associations have been in existence in many parts of the province for a considerable period. Some of them have done good work, but the majority have not proved altogether satisfactory. It has been decided to organize these associations as far as possible on a co-operative basis. Details of the working of these societies have been given in paragraph 557 under "Co-operative Societies."

Cattle-breeding.

524. There are at present two herds in the Rangpur cattle farm, one of *deshi* cattle and one of *deshi* cows crossed with Hissar bulls. Experiments have now been carried on for about ten years, and, so far as they go, they indicate that improvement can be effected by better methods of feeding and rearing *deshi* cattle, but that much more rapid progress is obtained if *deshi* cows are crossed with bulls of good pedigree. The policy of the department in the future will be devoted towards breeding a dual purpose animal, such that the males will be better plough bullocks than the existing animals available, and the cows better milkers.

In order to effect this, it is necessary to work on the principle that the milking capacity is an inherited character and that the change can therefore be most rapidly effected by using bulls of known milking pedigree. In pursuance of this policy small herds of two famous milking breeds, *viz.*, the Red Scindi and Montgomery (or Saniwal), are being established at Dacca and Chinsura farms, and their performances in this climate are being closely watched. Stud bulls of these three milking breeds are now being placed on all the Government farms and may be employed by the cow-keepers in the neighbourhood.

Sericulture.

525. Mr. P. C. Chaudhuri, Superintendent of Sericulture, was appointed to the Indian Agricultural Service as probationary Deputy Director of Sericulture with effect from the 17th October 1921. The policy of the Sericulture Branch hitherto has been to produce disease-free seed cocoons at the Government nurseries for sale to private cultivators at the best rates obtainable. It was obvious, however, that Government could never expect to produce all the seed required by professional sericulturists and that it would be necessary to call a halt very soon. It was decided, therefore, to re-examine the existing policy. With this object in view, the Hon'ble Minister in charge visited the chief sericultural centres of the province and held a conference in March last to discuss the question, to which not only the members of the Bengal Silk Committee but other gentlemen interested in the industry were invited. It was agreed that in future private seed-producing agencies should be organized so as to act as intermediaries between the Government nurseries on the one hand and the commercial cocoon growers on the other. It was further agreed that Government nurseries should not be regarded simply as commercial propositions, but that they should be utilized more for demonstration purposes and as a means of educating the professional cultivator class. Steps are being taken to give effect to the resolution passed by the Conference.

The total receipts from the nurseries amounted to Rs. 79,381 as against Rs. 77,286 during the previous year. The demand for sericultural education continued to increase.

Industries.

[Report of the Department of Industries, Bengal, for the year ending 31st December 1921.]

Administration.

526. Dr. D. B. Meek, the Director of Industries, held charge of the department during the greater part of the year. During his absence on leave Mr. A. T. Weston, the Deputy Director, was placed in charge of the department. Mr. Everett held the post of Inspector of Technical and industrial Institutions. In December 1921, Dr. Rasik Lal Datta was appointed Industrial Chemist.

Industrial Research.

527. Owing to the absence of an expert staff little research work could be undertaken during the year, except at the Calcutta Research Tannery. The possibility of manufacturing glace-kid leather from local materials has

been demonstrated, the leathers manufactured comparing favourably with similar goods imported from abroad. Successful experiments have been made in the manufacture of foot-ball leather, box-side leather and sole leather.

Research, tannery.

528. Investigations in regard to the tanstuff resources of the Sundarbans forests have led to the discovery of an economical process for the utilization of *goran* (Ceriops Roxburgiana) bark, a full account of which has been published. Other tanstuffs of commercial importance have been discovered in the Sundarbans, and experiments with them are in progress.

Match industry.

529. The information available regarding the prospects of the match industry in this Presidency is at present meagre, and the matter has been under investigation by the Industries Department. Arrangements have been made for utilizing the services of Mr. A. P. Ghosh, a manufacturing expert, for a detailed survey and report on the technical and commercial aspects of the industry in Bengal. The investigation is expected to occupy a period of six months. Simultaneously the possibilities of the supply of suitable wood for matches from the Bengal forests will be examined.

Industrial development.

530. During the year the Industries Department directed its attention to the preparation of schemes for the development and encouragement of silk, glass, dairy and cigar and cigarette making industries. Much valuable information has now been collected, and the schemes are under consideration.

Hydro-electric survey.

531. The question of instituting a hydro-electric survey for developing water-power resources in Bengal came under consideration during the year. In accordance with the recommendations of the Industrial Commission, a joint Committee composed of officers of the Public Works Department and of the Department of Industries was appointed in November 1921 to conduct the survey, which will be confined, in the first instance, to the tract in Tripura State round Comilla and Chittagong.

Conch-shell industry.

532. Next to weaving, the conch-shell industry is the most important industry in Dacca. Large quantities of conch-shells are imported annually into the town from Ceylon, Southern and Western India. Owing to the high prices charged by the few middlemen who imported the shells the condition of the workers is gradually deteriorating. To remedy this state of things, a co-operative society has been formed among the conch-shell wokers, and the society, aided by a guarantee from Government against loss up to a maximum of Rs. 10,000, has successfully negotiated a contract with the Fisheries Department, Madras, for the purchase of shells direct.

Tanning industry.

533. At the Research Institute technical advice has been freely given, ready made treatment materials such as chrome liquors and fat-liquors have been supplied to inexperienced and unscientific tanners, and machine work, such as finishing, polishing, etc., has been executed for small concerns. In view of the valuable work done at the tannery it has been decided to continue it for a further period of five years. An interesting feature is the keen interest taken by young men of the *bhadralok* class in the manufacture of shoes and leather.

Weaving and tanning demonstrations.

534. For some time past there has been a keen demand for the demonstration of improved methods of spinning, weaving, and dyeing, and of tanning in exhibitions and in local centres of these industries. These demonstrations were attended with considerable success and created much local interest. As it is impossible for the ordinary staff of the Serampore Weaving Institute and Calcutta Research Tannery to cope with the increasing calls on them for such demonstrations special establishments have been sanctioned for the purpose. The department also arranged for the attendance of a large number of weavers from the districts of Bengal at the All-India Handloom Weaving Exhibition at Patna, and they showed a keen appreciation of the advantages of improved methods. The recent revival of the handloom weaving industry afforded a great opportunity to the department for popularising the use of fly-shuttle looms and labour-saving appliances and spinning machines, and full advantage was taken of it. Facilities were also afforded for the formation of co-operative societies among weavers and the establishment of varn banks and cloth depôts.

Technical and industrial education.

535. The development of technical and industrial education continued to receive earnest attention. In pursuance of the schemes for the training of apprentices in railway and other workshops in the neighbourhood of Calcutta, the Board of Control for Apprenticeship Training and the governing body of the Calcutta Technical School were appointed during the year under review.

Apprenticeship training.

536. The Kanchrapara Technical School scheme has since received the approval of the Government of India in the Railway Department, who have authorized the co-operation of the Eastern Bengal Railway authorities with this Government in the matter. Steps have now been taken for giving full effect to the scheme in collaboration with the committee of management of the school and for the improvement of teaching work by the appointment of the full staff. Pending the transfer of the Locomotive Superintendent's office at Kanchrapara, which has been selected for the location of the school, the classes are being held in certain rooms of the new hostel buildings for Indian apprentices. It is hoped that it will be possible to complete the scheme in the near future with the co-operation of the railway authorities. Owing to the want of funds the building operations in connection with the Technical School in Calcutta had to be suspended. The Legislative Council voted a grant of Rs. 65,000 to enable the Public Works Department to proceed with the work during the year 1922-23.

Mining education.

537. Progress was made with the scheme for the improvement of mining education in the coal-fields. Some of the buildings required for lecture-halls and quarters for the teaching staff at Raniganj and Sitarampore are already under construction. Financial considerations have necessitated the temporary suspension of arrangements for recruiting the new staff required. Meanwhile, however, the present arrangement under which lectures are delivered by part-time lecturers will continue.

Serampore Weaving Institute.

538. The Government Weaving Institute at Serampore and the district and peripatetic weaving schools continued to do useful work. The great popularity of the Serampore Institute is evident from the large number of applications for admission received at the last session. Accommodation is available only for 75 students in the higher classes and for about 60 in the Artisan classes, while the total number of applications from qualified candidates amounted to about 2,000. Towards the end of the year under review it was decided to retain the Institute permanently at Serampore. A building project for the Institute which is at present located in hired buildings is now under consideration. Steps were taken after the close of the year for the extension of the peripatetic demonstration of weaving, and arrangements have been affected at a comparatively small cost by which the peripatetic schools will be in a position to admit at one time double the number of pupils that they can teach at present. The system of granting loans to ex-students of weaving schools for the purchase of machinery has been very popular and has enabled many of the students to make a successful start in the weaving industry.

Calcutta Commercial Institute.

539. Sanction has been received to the recruitment in India of a qualified Principal for the Government Commercial Institute in Calcutta, and it is hoped that the post will be filled in the near future. As soon as this has been done the Principal will be asked to prepare a scheme for the expansion and improvement of the Institute.

During the year schemes for the establishment of industrial, commercial and junior technical schools at suitable centres throughout the province were under preparation. These schemes have matured since the close of the year, and it is proposed to start two schools of each of these types when funds permit.

Fisheries.

[Report of the Department of Fisheries, Bengal, for the year ending the 31st March 1922.]

Fisheries.

540. The depletion of the superior staff noticed in the two previous years' reports continued during the year under review and consequently the work of the department was seriously handicapped and no important project for development could be undertaken. The temporary arrangement

under which the Director of Agriculture, Bengal, was placed in charge of the department, pending the appointment of a permanent Director of Fisheries, continued during the year. The Secretary of State has sanctioned the appointment of a Director for Bengal, but until the report of the Retrenchment Committee is received, it has been decided to postpone the recruitment of an officer for the post. Pending a decision on the future of the Fisheries Department all new expenditure for its development has also been suspended.

Carp.

541. As reported last year, carp-breeding experiments made much headway, but the proposal for the establishment of a carp culture station to obtain definite results must wait until the future organization of the Department is settled and funds become available. No appreciable progress was made in *hilsa* work during the year. The experimental culture of fresh water mussels, carried on in the Dacca tanks was attended with satisfactory results, but for want of necessary appliances further experiments on approved lines could not be undertaken.

An interesting feature of the work of the Department was an investigation regarding the mosquito larvae-eating species of fish, two consignments of which were sent to the Mines Board of Health at Asansol and the British Station Hospital at Cawnpore.

Primary education and Co-operation among fishermen.

542. It is satisfactory to note that fishermen are beginning to realize the advantages of primary education for their children. In Dacca district alone there are 10 schools for the children of fishermen and there are a few day and night schools in the district of Khulna. The co-operative movement did not make much progress amongst fishermen during the year, only two new societies being registered during the year as against 16 in the previous year. The total number of such societies was 49 at the end of the year. The Registrar of Co-operative Societies, however, is devoting attention to this question and it is hoped that means will soon be devised to tackle the financial problem involved and render it possible to extend the movement more widely among fishermen.

Fishery companies.

543. The establishment of fishery companies, two in Faridpur district and one in Khulna, and a European company for the exploitation of estuarine fisheries in the Sunderbans, marks another attempt at the solution of the fish-supply problem in Bengal. One of the companies named the Madaripur Fishery & Trading Company, Limited, is purely a fishermen's concern, almost all the directors of the company and 90 per cent. of the shareholders being *bona fide* fishermen. The manager is also a fisherman by caste. The object of the promoters of the company is to improve the social and economic condition of the fishermen of the district.

During the carp season of the year under review, 690,000 selected fry were supplied to the public by the department, 428,000 in Bengal including Cooch Behar State, and 262,000 in Bihar and Orissa, against a total of 517,000 in 1920-21. The unsteady nature of the monsoons was responsible for a falling off in supply and all fry had to be obtained in August and September instead of in July which is the usual season.

The statistics of fish imported into Calcutta during the year under review show imports of 417,684 maunds, as compared with 370,119 maunds in the preceding year. This has exceeded all past records, but the supply is still far short of the demand.

Weather and Crops.

[Season and Crop Report of Bengal for the year 1921-22; Crop Forecasts of Bengal for the year 1921-22; Agricultural Statistics of India, Volume I.]

Character of the season.

544. In the first part of March excessive rainfall in Northern and Eastern Bengal delayed ploughing and the sowing of autumn crops, but was followed up to the first half of April by favourable dry weather. In the western districts, on the other hand, inadequate rainfall in March and the

first part of April interfered with sowing. Rainfall was general throughout the Presidency in the second half of April. Defective rainfall in May and June retarded the growth of autumn crops, but encouraged the sowing of deep-water paddy. In July the rainfall was unevenly distributed; for, whereas Northern and Eastern Bengal had ample and even in places excessive rain, there was general deficiency in West Bengal. The sudden rise of the rivers in June and July caused some damage to low-land jute and other autumn crops in several districts of East and Northern Bengal. The transplantation of winter paddy was greatly facilitated by abundant rain in August. Rainfall in September was only moderate and was followed by inadequate rainfall in October which adversely affected the winter paddy, especially on the higher lands in West Bengal, where transplantation had been commenced earlier, than usual. Conditions in September and October, however, were very favourable for spring crops. After October rainfall ceased entirely and the outturn of most crops suffered in consequence. The special features of the season were the unequal distribution of rainfall throughout the Presidency, the early cessation of the monsoon, and the absence of winter rain.

The following table furnishes the estimated area and outturn in 1921-22 of *bhadoi*, *aghani* and *rabi* crops as compared with the corresponding estimates of the previous year :—

Name of harvest.		Normal area in acres.	Area cultivated during 1920-21 in acres.	Area cultivated during 1921-22 in acres.	Taking 100 to represent the normal outturn per acre how much represented the outturn for the year.	
					1920-21.	1921-22.
Bhadoi		8,881,400	8,336,400	8,026,100	86	85
Aghani	Winter rice ...	17,377,600	15,343,800	15,850,200	90	100
	Sugarcane ...	244,700	218,800	220,900	88	82
	Other sugar producing plants.	59,000	56,100	55,700	...	...
Rabi		5,416.900	4,081,900	4,008,100	81	77
Total ...		31,979,600	28,037,000	28,161,000	...	...

Bhadoi Crops. (excepting jute).

545. Weather conditions were generally favourable in the beginning of the season in the eastern and northern districts, but less favourable in the western districts. Later on, inadequate rainfall in the western districts during the growing period reduced outturn, while in some eastern and northern districts the early rise of the rivers during the monsoon caused considerable damage to ripe paddy in low-lying tracts. Harvesting was carried out under favourable conditions. On the whole the season may be regarded as satisfactory for these crops. The outturn of the different *bhadoi* crops of the province was returned at 85 per cent. of the normal as against 86 per cent. in 1920.

Jute.

546. The weather was too wet for the crop in the early stages in East and North Bengal districts, while drought delayed sowing in the *deshi* districts. The rainfall in July, though below normal in Western Bengal, facilitated weeding, but in most districts of Eastern Bengal it was excessive and caused considerable damage on low lands. Steeping and washing processes were helped by the seasonable rainfall in August and September. In the western districts the crops suffered slightly from insect-pests. The outturn was poor in Western Bengal but fairly satisfactory in Northern and Eastern Bengal. The area and outturn of jute were returned at 1,316,043 acres and 3,594,645 bales of 400 lbs. each, respectively. This represents a decrease of 853,159 acres and 1,652,718 bales, respectively, as compared with the previous year.

547. The weather was favourable throughout for the broadcast *aman* rice crop. In West Bengal, it was unfavourable for transplanted rice from June to the middle of August, during which period transplantation proceeded slowly until the end of August, when adequate rain accelerated operations. Conditions in East and North Bengal during this period were very favourable. In September a good deal of transplanting was done in West and in parts of North Bengal and the area increased considerably. The October rains, which are the mainstay of the crop in the province, were generally inadequate in the western districts and adversely affected the yield of crops grown in high lands. On the whole the season was very good for broadcast *aman* rice and satisfactory for transplanted rice. The provincial outturn was estimated to be normal or 100 per cent. this year, against 90 per cent. last year. **Winter rice.**

548. In the beginning of the season, lack of soil moisture and later on insufficient rainfall during the months of May and June were generally unfavourable to the germination and growth of the crop in the western districts. Subsequently, till the end of September, weather conditions were on the whole good and the crop improved greatly, although some damage was caused by heavy rainfall and flood in certain districts. The drought which followed in October tended to spoil what would otherwise have been a very favourable season. The outturn for the province worked out at 82 per cent. of the normal, against 88 per cent. last year. **Sugarcane.**

549. The preparation of the land and sowing of the crops were commenced at the normal time under favourable conditions. Subsequently prolonged drought greatly interfered with the growth of the crops, more particularly of late-sown crops in Western Bengal, and the showers that fell in January and the beginning of February were too late and too scanty to prove of any real benefit. The season though unfavourable for late-sown crops was, on the whole, fair. The outturn of the different spring crops for the province as a whole was 77 per cent. of the normal, against 81 per cent. in 1920. **Rabi crops.**

550. The weather was unfavourable at the outset owing to absence of rain. Subsequently, monsoon showers caused the crops to recover, but excessive rain at flowering time in October adversely affected the outturn in the Chittagong Hill Tracts, where the early crop is mainly grown. Elsewhere a fairly good crop was obtained. Conditions for the late crop were favourable up till October, but lack of rain thereafter tended to reduce the yield. The total outturn of cotton (both early and late), exclusive of Tripura State, was estimated at 12,702 bales this year, against 19,766 bales (revised) in 1920-21. **Cotton.**

551. The total cropped area was returned at 28,161,000 acres, against 28,037,000 acres for the previous year. Figures for the principal crops are given in the following table :— **Area under cultivation.**

Name of crop.	Normal area in acres.	Area cultivated during 1920-21 in acres.	Area cultivated during 1921-22 in acres.
Rice	22,886,400	20,883,800	21,832,300
Other food grains including pulses and *marua*	2,245,000	1,557,600	1,509,800
Jute	2,420,800	2,169,200	1,316,000
Oilseeds	1,666,000	1,235,000	1,267,000
Tobacco	336,600	258,100	298,100
Sugarcane	244,700	218,800	220,900

552. Owing to the good harvest and the restrictions on export, the price of rice was somewhat lower than in the previous year, but still remained much above the normal and the pre-war level. The prices of wheat, flour **Prices.**

and other food-grains remained high. A marked depression characterised the jute market, which was burdened with a large "carry over" from the previous year, mostly of poor quality. The prices of winter rice (common) at the time of harvesting varied from Rs. 5 per maund at Jessore, Bankura, Bogra and the Chittagong Hill Tracts to Rs. 7-12 per maund at Burdwan, and those of autumn rice from Rs. 4 per maund at Rangpur to Rs. 9 per maund at Darjeeling.

Co-operative Societies.

[Report on the Working of Co-operative Societies in Bengal for the year 1921-22.]

Administration.

553. Mr. J. T. Donovan, I.C.S., was the Registrar till the 3rd November 1921, Mr. C. G. B. Stevens, I.C.S., remaining in charge from the 4th to 15th November 1921, and Mr. M. Thorp, I.C.S., from 15th November 1921 to 30th January 1922. Rai J. M. Mitra Bahadur took over charge on the 30th January 1922. The post of Deputy Registrar was held by Mr. C. G. B. Stevens from 1st July to 3rd November 1921 and again from the 16th November 1921 to 30th January 1922, and by Mr. Thorp from 31st January 1921 till the close of the year. Government have already recognized the necessity of dividing the combined charge of the Presidency and the Burdwan Divisions by appointing an Assistant Registrar for the latter. But the actual appointment has been deferred for financial reasons. If the separation takes place there will be five Assistant Registrars—one for each of the five Commissioners' Divisions. Proposals for reorganizing the subordinate staff of the department and placing it on a permanent footing, which have been under consideration of Government for some time, have also been kept pending for the same reasons.

Development.

554. The total number of societies increased from 6,366 to 6,679 and the total number of membership rose from 242,085 to 260,142. Thus, the relative increase in the number of members which is 7·4 per cent. is more marked than the increase in the number of societies which is 4·9 per cent. But the proportion of increase in both cases was far less than in the preceding year. The unsatisfactory state of affairs occasioned by the trade depression, financial difficulties, and political and economic unrest which prevailed throughout the province last year and this year rendered the adoption of a policy of caution inevitable—a policy which was consistently maintained throughout the year in spite of persistent and increasing demand for more co-operative societies. It is, in fact, a matter for congratulation that co-operators are able to resist the temptation to multiply figures and numbers and to concentrate their attention on intensive development. The total working capital of the societies rose from 3·33 crores to 3·68 crores, an increase of 10·5 per cent., as against 17·9 per cent. in the previous year.

Provincial Bank.

555. The progress made by the Bengal Provincial Co-operative Federation, Limited, during the year was more than satisfactory. Its membership increased from 72 to 77, the working capital from Rs. 20,41,045 to Rs. 25,41,391 reserve funds from Rs. 12,642 to Rs. 37,167 and share capital from Rs. 2,97,500 to Rs. 3,14,925. Deposits during the year from public were Rs. 38,30,130 as against only Rs. 5,27,160 in the previous year. Raja Rishee Case Law, C.I.E., M.L.C., has accepted the honorary post of Chairman of the Provincial Bank.

Central Bank.

556. Excluding the Provincial Federation the Central Anti-malarial Society and the two Producers' Unions (The Calcutta Milk Union and the Bankura Industrial Union) the number of central banks at the close of the year was 70 against 68 in the previous year. The number of affiliated societies increased from 5,620 to 6,029, working capital from Rs. 1,21,22,554 to Rs. 1,30,55,375, deposits from non-members from Rs. 74,31,085 to

Rs. 84,87,916, the reserve and other funds from Rs. 5,81,936 to Rs. 7,57,328. These do not include the figures for the Central Anti-malarial Society, the Producers' Unions and the Federation mentioned above. The proportion of share capital plus reserve fund to the working capital of the central banks was 18·1 per cent., as against 17·8 per cent. in the last year. The importance not only of an adequate reserve fund but of an adequate reserve in the sense of assets of a liquid nature to meet any sudden demand is now being more fully realised and the Registrar has been empowered by the rules under the Act to ensure that central banks maintain liquid resources of an adequate amount. On the whole there has been a marked improvement in the working of the central banks.

Agricultural Societies.

557. The agricultural credit societies are still by far the most numerous type of registered co-operative societies aggregating, in fact, over 90 per cent. of the total number. The number of these societies rose within the year from 5,787 to 6,047, the number of members from 162,287 to 170,067 and working capital from Rs. 1,22,62,188 to Rs. 1,30,80,811. The share capital paid up by members increased from Rs. 3·02 lakhs to Rs. 4·68 lakhs, deposits by members from Rs. 6·26 lakhs to Rs. 6·39 lakhs, and the reserve fund from Rs. 15·73 lakhs to Rs. 18·32 lakhs. The increase in the amount of share-capital paid up is very satisfactory, being over 50 per cent.

There are now 15 agricultural purchase and sale societies as against 11 last year. Membership increased to 3,834 from 3,640 and the working capital to Rs. 1,36,214 from Rs. 1,34,943. The working of these societies on the whole shows slight loss on the year, owing to the difficulties of internal management. The Co-operative Department are well aware of the general incapacity of cultivators to manage the business affairs of those societies and do not readily encourage their formation. The Sundarbans Supply and Sale Society did not work as satisfactorily as in previous years; the year's profit was Rs. 2,330 as against Rs. 7,745 in the previous year. This institution is, however, of the utmost service to its members and this service is not to be measured by the profits shown. It has suffered in the past year from the dishonesty of employees and a lack of personal interest on the part of some of the directors. Like other such societies it has found difficulty in obtaining an expert manager. Notwithstanding this, the business is run on sound lines and will certainly expand to the increasing advantage of its members. The number of members of the Naugaon Sale and Supply Society increased slightly from 3,091 to 3,165. The irrigation societies made considerable progress during the year. They increased from 7 to 29, membership from 665 to 1,318, the working capital from Rs. 10,836 to Rs. 42,625. Co-operative agricultural associations for the purpose of promoting the agricultural interests of their members are a new venture which was taken up during the year. The general object of such associations is to popularize agricultural improvements among members. It is intended that these associations will take up land for the purpose of experiment with improved implements or seeds or manures. At the same time they will be able to sell the agricultural products grown by members and to undertake the economical supply of fodder, manure, seeds, implements and other articles required in agriculture. Loans also can be made, provided these are devoted to developing the land allotted to members by the association. Four such associations were registered during the year in the district of Pabna, of which only one commenced activity within the year. It is too early to prophesy about the future of this kind of society. The number of milk societies increased from 40 to 47 and their membership from 2,130 to 2,468. They have now recovered from the unsatisfactory position in which they found themselves last year and the affairs of the Milk Societies Union and with it of the milk societies may now be expected steadily to improve and there is every reason to hope for a large increase of this type of society. The membership of the Naugaon Ganja Cultivators Co-operative Society, Limited, increased from 2,975 to 3,021, the share capital from Rs. 30,400 to Rs. 30,830 and the working capital from Rs. 3,77,087 to Rs. 5,90,339. The profit of the society during the year was Rs. 3,46,517.

Non-agricultural societies.

558. The number of non-agricultural societies during the year is shown below—

	This year.	Last year.
I.—Credit Societies	162	148
II.—Stores and Supply Societies ...	80	90
II.—Artisans' Societies—		
(*a*) The Dacca Conch Shell Workers' Society	1	...
(*b*) Toy-makers' Society ...	1	1
(*c*) Shoe-makers' Society ...	6	7
(*d*) Weavers' Society	120	117
(*e*) Cocoon-rearers' Society ...	15	10
(*f*) Fishermen's Society	49	47
(*g*) Oil-pressers' Society ...	1	1
(*h*) Blacksmiths' Society ...	1	1
(*i*) Spoon-makers' Society ...	1	1
(*j*) Lac-growers' Society ...	1	1
IV.—Miscellaneous Societies—		
(*a*) Zamindari Societies	2	2
(*b*) Medical Aid Societies ...	1	1
(*c*) Anti-malarial Societies ...	8	7

The share capital of the Credit Societies rose from Rs. 16,32,702 to Rs. 19,04,666, the total working capital from Rs. 55,82,847 to Rs. 66,97,166, and deposits by members from Rs. 18,43,543 to Rs. 24,96,063.

Stores and Supplies Societies as a class did not prosper for the same reasons which led to their unsatisfactorily working last year, *viz.*, the absence of the true spirit of co-operation. Members were disloyal, credit was too freely given and reckless attempts were made to undersell the market. These faults could not be eradicated in spite of attempts to remove them.

The Dacca Conch Shell Workers' Society which was registered during the year after several years preparatory work, met with considerable success. The total number of weaver societies in the province is 120 against 117 in the previous year. Membership increased from 1,531 to 1,677 and working capital from Rs. 51,161 to Rs. 54,629. The weaving societies in the district of Bankura increased from 46 to 48. A factor which has discouraged the organization of societies amongst weavers is the feeling that the hand-loom will ultimately be compelled to give way to the power-loom. It is often overlooked that without any organizatioon of is own the hand-loom has been able to resist complete elemination by the power-loom and that co-operative methods are certain to increase its resisting power. Anti-malarial societies are now eight in number.

Bengal Co-operative Organisation Societies.

559. The Bengal Co-operative Organization Society continued its activities on the lines followed in previous years. Its two journals, the *Bengal, Bihar and Orissa Co-operative Journal* which was converted into a quarterly periodical during the course of the year, and the monthly vernacular *Bhandar* appeared regularly. Arrangements were made for the delivery of lectures under the auspices of the society both in Calcutta and in the mufassal. Propaganda work was also carried on in the mufassal by the exhibition of magic-lantern slides, prepared by the authorities of the Bengal Social Service League, for the purpose of demonstrating the benefits of co-operation. The information bureau attached to the department met all requests for the use of its exhibits at mufassal conferences.

Horticulture.

[Annual Report of the Royal Botanic Garden and other gardens in Calcutta and of the Lloyd Botanic Garden, Darjeeling, for the year 1921-22.]

The Royal Botanic Garden

560. The garden suffered from the severe drought during the latter half of the year under report, but the meagre showers which fell about the end of the year prevented extensive casualties among the plants. During

February and March an unusual number of fires were caused by the carelessness of visitors and several of the *debdar* trees in the King Avenue were damaged. The cold weather display of annuals in the flower garden and the show of orchids were up to the usual high standard. Some 30 young trees were planted out, the majority of them being Indian species, new to the garden. The garden roads suffered considerably from the motor traffic over them which has increased so much in recent years, and which was not foreseen when they were constructed. For the protection of the garden a length of over 370 feet of the river bank west of the landing stage was revetted with bricks and concrete during the year, bringing the total length up to nearly 1,000 feet.

Plants and seed distribution.

561. Nearly 42,000 plants and 18,000 shrubs were distributed and over 1,500 plants were received, chiefly orchids. Of seed, over 300 packets and nearly 400 lbs. (including over 300 lbs. to New Delhi) were distributed within and outside India, and 160 packets were received in addition to the usual consignments of mahogany seed from Kew and a large quantity of palm seed from Pashok Tea Estate.

Herbarium.

562. Work was carried out in the Herbarium with the aid of the Botanical Survey Department. Over 2,000 specimens were added to the collection and over 5,000 were distributed, mostly on loan, to various botanists for purposes of research.

Publications.

563. No publication was issued during the year. Distribution of Part II of Volume XII of the Annuals of the Garden was begun during the latter half of the year.

Calcutta gardens.

564. The work in these gardens was mostly of a routine horicultural character. The garden staff gave considerable assistance in laying out and planting the flower beds around the Victoria Memorial and in furnishing ornamental plants for decorative purposes during the visit of His Royal Highness the Prince of Wales.

Lloyd Botanic Garden, Darjeeling.

565. The garden suffered from drought during the year and a considerable number of plants have been lost. The general appearances of the garden, however, has not suffered to any material extent. Over 1,000 plants, over 2,200 seedlings, over 430 tubers and over 180 packets of seed were distributed during the year.

Cinchona Plantations and Factory.

[Report of the Government Cinchona Plantations and Factory for the year 1921-22.]

Plantations.

566. The total area under a full complement of cinchona on the Mungpoo and Mungsong Plantations was 3,128 acres, as compared with 3,236 acres in 1920-21 During the year cultural conditions of both plantations were satisfactory.

Outturn.

567. 510,160 lbs of mixed plantation bark, comprising 233,914 lbs. of Mungpoo and 276,246 lbs. of Mungsong bark were worked up in the Quinine Factory, against 617,018 lbs. in 1920-21, excluding the quantity of Java bark extracted for the Government of India. In addition Java bark, purchased for the Government of India, was also worked up during the year. The total quantity of quinine sulphate produced, including the product of the bark purchased in Java, amounted to 44,254 lbs. against 24,639·75 lbs. in the previous year. In addition 12,688 lbs. of cinchona febrifuge and small quantities of quinine hydrochloride and cinchonidine sulphate were also manufactured.

The total provincial quinine sulphate reserve stood at 28,538 lbs. 6 oz. at the end of the year 1921-22. This was 11,293 lbs. 8 oz. less than the balance at the close of the year 1920-21. The value of the stock of all sorts on the 31st March 1922 was Rs. 9,70,441, of which quinine sulphate worth Rs. 8,56,151 formed the chief item.

Forests.

[Forest Administration Report for the year 1921-22. Statistics of British India, Part IV(*b*)—Finance and Revenue.]

Administration.

568. There was a change in the area of the different classes of forest under the Forest Department due to the inclusion of an area of 4 square miles in the forest reserves of the Jalpaiguri, Buxa, Cox's Bazar and Chittagong Hill Tracts Forest Divisions and exclusion of 6 square miles of protected forests, mainly in the Sundarbans Forest Division.

Communications and Buildings.

569. One hundred and forty-six miles of road and paths were constructed during the year: In the Cox's Bazar Forest Division 23 miles of useful grazing paths were also constructed to enable the villagers to take their buffaloes to the Chittagong Hill Tracts and to protect the reserves from illicit grazing. The total expenditure on communications amounted to Rs. 29,374 against Rs. 25,426 and on new buildings and repairs to Rs. 98,390 against Rs. 1,03,083 in the preceding year.

Forest offences.

570. The number of forest offences was 2,865 as against 3,248, the average of the preceding three years.

Protection from fire.

571. The area in which fire protection was attempted was the same as in the previous year and the percentage of successful protection was 95 against 98·7 in 1920-21. The cost of protection was Rs. 7 per square mile. The area burnt over amounted to 20,061 acres against 5,406 acres in the previous year. The Buxa Division had the largest number of fires, and this was due to the insufficient protective burning of the *Khair* and *Sissoo* forests, the unusual drought during the fire season, and the unrest among the tea garden coolies in the eastern part of the Jalpaiguri district. In 58 out of 74 cases the causes of the fires were undetected.

Protection from cattle.

572. There was no reduction in the area open to grazing, which amounted to 45 per cent. of the total forest area. The number of cattle impounded for illicit grazing was 3,715 as against 3,147 in the previous year.

Exploitation.

573. Departmental work for extraction of timber increased slightly during the year. In addition to the usual requirements of timber for buildings and bridges and for the supply of specimens and the collection of drift, large quantities of sleepers were sawn and supplied to the Eastern Bengal Railway, besides *sal* logs sent to Messrs. Martin & Co., Calcutta and to Messrs. Howard Brothers, London, for disposal. The box planking from the departmental saw-mill at Sukna was sold to the local tea gardens. The total outturn of timber of different kinds amounted to 7·75 millions of cubic feet during the year as compared with 7·33 millions of cubic feet during the year. A departmental depôt opened at Darjeeling during the year for the continuous supply of charcoal gave quite satisfactory results. The Buxa Timber Trading Company finished their royalty-free period at the end of June 1921 and are now paying royalty under the terms of their agreement. Messrs. Andrew Yule & Co., Ltd., extracted bamboos from the Kassalong range in the Chittagong Hill Tracts for paper-pulp in accordance with the terms of the lease granted to the Company. Departmental *Khedda* operations carried on jointly with the Bhutan Durbar in the Buxa-Bhutan Mahal, and in the Chittagong Hill Tracts and Kalimpong Divisions brought in a profit of Rs. 21,880. The year's proceeds from sale of timber fuel, bamboo, grass and other minor produce amounted to Rs. 14,84,000. The Forest Department took part in the annual fair at Kalimpong and the forest exhibits served a useful purpose.

A Forest Engineer was appointed during the year. He has enabled the experiment in modern methods of exploitation to be placed on a sounder footing.

Mortality caused by wild animals.

574. The number of persons reported to have been killed by tigers in the Sundarbans was 21 against 18 in the preceding year and 14, the average for the past five years. The number of tigers killed in the Sundarbans was 34.

575. The non-co-operation movement affected the forest Department, and in the Chittagong and Cox's Bazar Divisions much mischief was caused by villagers who had been incited by unscrupulous agitators. They looted a considerable amount of forest produce, caused damage to the forests, and set fire to several forest buildings. General.

576. The financial results of the year have not been so satisfactory as compared with those of the preceding year. The net income amounted to Rs. 6,10,838 against Rs. 8,48,013 in 1920-21 and Rs. 8,22,219, the average of the preceding five years. There was a decrease in the total revenue from Rs. 21,84,763 in 1920-21 to Rs. 18,98,959 in the year under review. The decrease has been due to certain unforeseen causes, viz., (1) the loss of a lakh of rupees in royalty from a lessee in the Sundarbans, who became insolvent and failed to work; (2) a reduced export from the Sundarbans of *golpatta* leaves owing to the distress in the Khulna district; and (3) the general depression of trade, and the railway strikes which prevented merchants from carrying on their business. Financial results.

The total expenditure was Rs. 12,88,121 against Rs. 13,36,750 in the preceding year. Of the expenditure, 55 per cent. was on constitution, improvement and exploitation, and 45 per cent. on administrative, executive and protective charges.

Manufacture and Mines.

[Statistics of British India, Volume 1—Commercial.]

577. Owing to low prices, unfavourable weather conditions, and high prices of foodstuffs, the area under jute decreased to 1,316,000 acres or by about 39 per cent. and the estimated outturn to 3,595,000 bales or by 31 per cent. as compared with the year 1920-21. During the year under report there were 77 jute mills at work employing on an average 284,738 operatives daily—a decrease of 1,143 over those of the previous year. The number of looms and spindles at work in the jute mills were 42,529 and 896,815, respectively, as against 41,292 and 863,339, respectively, in 1920-21. The authorized capital employed in rupees, sterling and dollars was Rs. 16,46,96,000, £ 2,196,358 and $ 17,000,000, respectively. Jute.

578. Thirteen cotton mills were at work employing on an average 12,843 persons daily as against 12,696 persons in 1920-21. The number of looms and spindles was 3,002 and 341,656, respectively, as compared with 2,467 and 343,542 in the year 1920-21. The authorized capital employed was Rs. 1,95,00,000. Cotton.

579. The area under tea in 1921 was 181,600 acres (including figures for Tripura State) as against 172,400 acres in the previous year. The quantity of tea manufactured was 58,777,687 lbs. (including figures for Tripura State) as compared with 71,696,567 lbs. in 1920. The number of tea plantations totalled 372, employing on an average 140,157 permanent and 5,701 temporary hands daily. Tea.

580. There was only one silk mill under operation of the Indian Factories Act, which gave employment to 143 operatives daily on an average. As a cottage industry, silk weaving was carried on by over 2,500 families in the districts of Birbhum, Bankura, Burdwan, Midnapore, Murshidabad Rajshahi, Bogra and Malda in Bengal during the year under report. About 20,395 *kahons* of disease-free seed cocoons were sold from different sericultural nurseries under the Department of Agriculture during the year 1921-22. Silk.

581. The acreage under sugar crops increased from 274,900 to 276,600 in 1921-22. The Cossipore Sugar Works, which is the only regular sugar factory in the province, employed on an average 748 persons daily. Sugar-making was carried on as a cottage industry in the 24-Parganas, Jessore, Khulna and Howrah districts, and gave occupation to a large number of persons. Sugar.

Paper.

582. There were three paper mills at work during the year 1921-22, employing on an average 4,535 persons daily. These mills produced 21,750 tons of paper valued at Rs. 1,84,85,552 during the year.

Wool.

583. Two woollen mills were at work during the year 1921-22, employing on an average 325 persons daily. The number of looms and spindles was 32, and 2,228, respectively. These mills produced 367,310 lbs. of blankets valued approximately at Rs. 4,46,250. One of these woollen mills is a Government concern *viz.*, the Dacca Jail.

Salt and saltpetre.

584. The quantity of refined saltpetre produced during the year was 4,399 maunds as compared with 9,587 maunds in the previous year. This decrease was due to reduced demand from foreign countries. The quantity of salt educed in the process of refinement was 288 maunds, as compared with 780 maunds in 1920-21.

Coal.

585. The total number of coal mines worked in Bengal rose from 240 in 1920 to 268 in 1921, the daily average number of persons employed being 45,813 as against 43,782 in 1920. The scarcity of labour was as acute as in the previous year, but an increase was recorded in the raisings of coal, the total output during the year under report amounting to 42,59,642 tons, or 52,190 tons more than that of the preceding year. During the year the industry was again greatly handicapped owing to the shortage of wagons; prices of coal continued high as the demand was far in excess of the supply. To ease the situation the export of coal was restricted throughout the year. The general sanitary condition of the colliery area was satisfactory and there no serious outbreak of epidemic disease.

MISCELLANEOUS MANUFACTURES IN EACH DIVISION.

Presidency Division.

586. Among the new enterprises in Calcutta may be mentioned the manufacture of oil-gas stoves (similar to the well known Primus kerosine stoves of Sweden), water-proof cloth, and enamel-ware. Four small engineering firms of Calcutta have commenced the production of match-making machinery suitable for the purposes of a cottage industry and three others have placed in the market electric fans. The construction of a large electric power-station at Bhatpara for the supply of bulk power to local jute mills near Naihati was on the point of completion during the year. The Hukumchand Jute Mill at Naihati was completed and commenced production. A large factory for the production of bobbins, reeds, gill stocks, and other textile accessories as also a large pulp mill for manufacturing paper from bamboos were established in the same locality. About 80,000 maunds of date palm sugar were turned out in the Kotchandpur refineries of Jessore. The establishment of small weaving factories, both for cotton and silk, was an interesting development in Murshidabad.

Burdwan Division.

587. The iron works of the Asansol Subdivision suffered from financial difficulties and labour unrest, while the coal industry experienced difficulties from wagon shortage in addition. The extensive jute and textile mills of Messrs. Ludlow & Co., near Uluberia, commenced work. Several rice and oil mills were started in the mufassal towns. A factory in Howrah began the manufacture of mica chimneys and a local engineering firm under Indian management produced tip-waggons and haulage machinery for colliery purposes, including small steam engines. A tannin extraction factory was projected in Kharagpur. The handloom weaving industry was generally prosperous in all the districts.

Dacca Division.

588. A few of the small button factories in Dacca and Narayanganj installed improved machines but foreign competition and the poor condition of the market prevented them from making much headway. The match factories started with locally made machines produced matches of second rate quality. Much improvement is possible in this small industry. A Faridpur factory produced condensed milk on a limited scale, but is considerably handicapped by lack of transport facilities. The *kantha* needlework of Faridpur and the gunny cloth weaving of Bakarganj received the attention of the Department of Industries and possibilities of development were demonstrated.

589. The handweaving and the hosiery manufactures of Pabna benefited from the *Swadeshi* agitation. The tea industry was in a more stable position. The company formed to utilize the forest resources at Buxa experienced considerable difficulties with its equipment and was also handicapped financially. No marked change occurred in the silk industry of the division. Rajshahi Division.

590. Bamboo umbrella handles continue to be made at Sitakund in large quantities. The village tanners of Noakhali have learnt to produce a better quality of leather, and are now using the chrome process as the result of practical demonstrations by the Research Tannery staff, but unfortunately have received very little public support. Yarn depôts were organised in two places for supplying yarn at wholesale rates to the handloom weavers. Chittagong. Division.

Working of the Indian Factories Act, 1911 (XII of 1911).

[Annual Report on the working of the Indian Factories Act in Bengal for the year 1921.]

591. The number of factories at the close of 1921 was 720 against 680 in the previous year, the number of new factories brought under the operation of the Act being 40 as against 57 in 1919. The daily average number of operatives employed during the year was 465,412 as compared with 464,713 in the preceding year. There was a fair increase in the number of persons engaged in engineering industries and jute and cotton mills while there was some falling off in this respect in arms and ammunition factories and jute presses. Number of factories.

592. In 72 factories work was carried on by means of shifts and in 301 with stoppages, after intervals of six hours. One hundred and thirty-eight factories were exempted under Part C, Schedule I of the Act, and in 187 factories other arrangements were in force. Twenty-two factories remained closed during the year. System of work.

593. Thirty-five factories were inspected more than three times during the year, 26 thrice, 42 twice, 185 once, while 432 factories remained uninspected. Inspections.

594. The larger factories continue to devote attention to sanitation. New or additional septic tank installations were erected during the year in 12 factories and were in course of construction in 7 others. Latrines provided in factories within the Calcutta municipal area were, as a rule, found to be satisfactory and easily kept clean, but on the other hand, the hand service-latrines provided, where there are no underground sewers, were often insaniary, a condition due partly to the unsatisfactory conservancy arrangements of the municipalities concerned. The ventilation and lighting arrangements of factories were generally satisfactory and steps were taken by the factory authorities concerned to remove defects on their being brought to notice. In most factories the supply of water was good and adequate. The system of sinking tube-wells for the purpose of securing continuous supplies of water has generally given very satisfactory results. During the year 25 factories installed 37 tubes obtaining a total output of 2,16,000 gallons of water per hour. Sanitary and housing arrangements, water-supply, etc.

595. Steady improvement continues to be maintained in the conditions of living of factory operatives and this is especially noticeable in the larger factories within the Calcutta industrial area. Factory labourers' wages which had either during or after the war been raised 50 per cent. over pre-war rates, remained practically stationary during the year, except in a few cases where the increase necessary to bring them in line with the general rise was granted. General condition of operatives and wages.

596. The general health of factory operatives was satisfactory. Outbreaks of malaria and influenza in four factories and mild epidemics of cholera and small-pox in two others, which caused a temporary shortage of labour in the factories concerned, were reported during the year. General health of operatives.

Accidents.

597. There was a slight decrease in the number of accidents reported during the year, the total being 1,418, or 23 less than the previous year. Falling weights and rolling stock were the most frequent causes of fatal accidents. As in the previous year, the largest number of accidents in textile factories occurred on jute carding machines and were due to operatives trying to clean machines while in motion. The number of such accidents would be considerably reduced if manufacturers could be induced to insert an interlocking guard between the doors covering the dangerous parts of the machines and the starting gears.

Prosecutions.

598. During the year 7 prosecutions were instituted, all ending in conviction; fines ranging from Rs. 15 to Rs. 200 were imposed.

The trade slump during the year seriously affected all factories, with the exception to some extent, of cotton mills and engineering works. Industries suffered also from the unsettled condition of labour and strikes were frequent.

Trade.

[Report on the Maritime Trade of Bengal for 1921-22. Annual Statement of the Sea-borne Trade and Navigation of the Bengal Presidency. Annual Statement of the Sea-borne Trade of British India with the British Empire and Foreign Countries. Annual Statement of Coasting Trade and Navigation of British India. Statistics of British India, Volume I—Commercial Statistics. Review of the Trade of India 1921-22.]

I.—FOREIGN SEA-BORNE TRADE.

[Report on the Maritime Trade of Bengal, 1921-22.]

Total trade. (Merchandise private and Government.)

599. In the year under review the aggregate value of the trade of the Bengal Presidency, both foreign and coastwise, decreased from Rs. 247 crores to Rs. 240 crores or by 12 per cent. The value of the foreign trade decreased by Rs. 38 crores or 16 per cent. to Rs. 197 crores from Rs. 235 crores in 1920-21. The value of the coasting trade, on the other hand, rose by nearly Rs. 4 crores to Rs. 42 crores against Rs. 38 crores in the preceding year. The foreign import trade declined by Rs. 17 crores or nearly 14 per cent. to Rs. 106 crores and the exports by Rs. 21 crores or 18 per cent. from Rs. 112 crores to Rs. 91 crores.

(Merchandise private.)

600. The following table shows the extent to which the foreign trade in merchandise (private) of the Presidency is centred in the chief port of Calcutta:—

Imports and exports of merchandise (private) in 1921-22.

	Total Presidency.	Per cent.	Calcutta.	Per cent.	Chittagong and its sub-ports.	Per cent.
	(In thousands.)		(In thousands.)		(In thousands.)	
	Rs.		Rs.		Rs.	
Imports ...	1,02,73,00	= 100	1,01,54,82	= 99	1,18,18	= 1
Exports ...	90,46,11	= 100	86,99,27	= 96	3,46,84	= 4
Total ...	1,93,19,11	= 100	1,88,54,09	= 98	4,65,02	= 2

Treasure.

The imports of gold, both on private and on Government account, were valued at Rs. 21 lakhs against Rs. 83 lakhs in 1920-21, and those of silver at Rs. 47 lakhs against Rs. 40 lakhs in the preceding year. The exports of gold exceeded imports and amounted to Rs. 30 lakhs, while those of silver were only Rs. 14 lakhs.

IMPORTS OF MERCHANDISE.

601. The following table shows the comparative importance of the principal articles in the import trade of Calcutta:— **Principal articles imported into Calcutta.**

	Average value for the 5 years 1909-10 to 1913-14.	Average value for the 5 years 1914-15 to 1918-19.	1919-20.	1920-21.	1921-22.	Percentage of proportion to total imports of merchandise.
	Rs.	Rs.	Rs.	Rs.	Rs.	
Cotton goods	24,50,83,600	23,41,65,534	28,21,29,876	37,11,56,761	27,19,20,425	26·78
Machinery and millwork	2,15,13,063	2,18,49,587	5,08,17,902	10,37,77,866	14,96,26,513	14·73
Sugar	5,66,56,858	6,75,35,377	11,02,99,039	6,82,50,454	12,44,53,420	12·25
Metals and ores	6,73,94,372	5,61,18,068	10,61,51,546	16,60,11,396	10,53,85,403	10·38
Railway plant and rolling stock ...	2,09,41,005	1,35,60,440	2,48,62,664	6,57,14,675	8,70,71,313	8·57
Oils	1,67,74,610	1,93,18,552	3,62,41,776	4,03,05,882	2,97,62,377	2·93
Grain, pulse and flour	1,70,302	13,57,455	55,69,157	30,539	2,29,91,001	2·26
Instruments, apparatus and appliances.	57,54,378	68,11,145	1,04,82,543	2,38,50,563	2,13,99,150	2·11
Hardware, excluding cutlery and electroplated ware.	1,12,85,712	1,11,35,247	1,70,70,665	3,12,36,031	2,12,61,602	2·09
Salt	59,68,637	1,41,83,967	1,78,87,037	1,78,49,111	1,13,47,066	1·12
Liquors, including methylated and perfumed spirits.	63,26,815	76,33,279	1,04,57,307	1,35,99,779	1,05,60,617	1·04
Motor-cars and motor-cycles and parts thereof.	32,94,344	38,95,236	1,41,78,362	4,90,68,555	91,33,633	·90
Building and engineering materials	28,00,475	42,73,767	57,28,392	93,13,765	85,82,003	·85
Articles imported by post	27,94,746	42,42,061	67,56,950	1,34,01,396	80,45,445	·79
Provisions and oilman's stores ...	58,28,180	65,60,309	1,00,55,224	1,13,70,147	78,95,272	·78
Chemical and chemical preparations.	37,55,093	74,62,195	75,62,191	1,16,08,857	77,97,574	·77
Spices	65,40,348	76,96,438	94,08,472	79,75,023	77,63,021	·76
Glass and glassware	51,10,431	46,72,505	64,13,428	1,01,79,923	72,04,548	·71
Paper and pasteboard	35,29,023	60,13,840	70,43,298	2,32,50,599	65,92,355	·65
Matches	25,79,515	42,65,035	47,82,889	43,14,691	61,87,326	·61
Rubber	8,33,107	42,36,095	77,33,523	1,03,98,287	61,37,946	·60
Drugs and medicines (excluding chemicals and narcotics).	37,16,417	44,10,657	58,41,880	77,32,150	55,27,004	·54
Paint and painters' materials ...	27,89,029	40,05,286	46,29,633	71,34,331	49,12,124	·49
Tobacco	27,45,291	45,41,756	62,48,508	1,03,82,539	48,95,422	·48
Tea-chests, entire or in sections ...	33,64,246	69,74,637	57,45,258	81,02,998	43,56,104	·43

The important imports are separately dealt with in the sub-joined paragraphs.

602. Imports of cotton piece-goods showed a slight advance from 636 to 652 million yards. The trade in coloured goods was greatly restricted from 112 to 37 million yards, but this decrease was more than set-off by an increase in grey goods from 387 to 478 million yards. White goods were on the level of last year and stood at 137 million yards. The United Kingdom, as usual maintained the first place which she has always held, her share being 97 per cent. in grey, 98 per cent. in white, and 94 per cent. in coloured goods. Japanese grey piece-goods fell from 38 to 14 million yards and coloured goods from 6 million to half a million yards. The Italian trade in coloured goods also suffered, while shipments of white goods from Japan and Holland were maintained on the previous year's level. American grey goods made a considerable advance. The average value of grey goods decreased from nearly 7 annas to 5½ annas. Imports of hosiery declined from Rs. 109 lakhs to to Rs. 28 lakhs, Japan contributing 78 per cent. of the total and the United States less than one-tenth of the previous year's trade. The trade in handkerchiefs and other cotton manfactures fared almost as badly. **Cotton Manufactures.**

Imports of twist and yarn were higher than in any previous year except 1912-13, but the value fell from Rs. 3½ crores to Rs. 2¾ crores. The arrivals of both yarn and cloth from Bombay coastwise advanced and the total value amounted to Rs. 7 crores against Rs. 6½ crores a year ago.

Machinery and Mill-work.

603. The total value of the imports of machinery and mill-work amounted to nearly Rs. 15 crores against Rs. 10 crores in the preceding year. 81 per cent. of the trade was borne by the United Kingdom and 16 per cent. by the United States of America. Jute mill machinery was the principal item (Rs. 4,26 lakhs), followed by electrical machinery of all kinds (Rs. 1,81 lakhs), boilers (Rs. 1,31 lakhs), and workshop and foundry machinery (Rs. 1,03 lakhs). Marked increases were also noticed in oil crushing, sugar, cotton, and paper mill machinery, while there were heavy declines in the case of agricultural and tea-making machinery. Sewing machines and typewriters also showed a big decrease.

Sugar.

604. Imports of refined sugar rose by 305 per cent. from 86,000 tons to 348,000 tons or by 32 per cent. above the pre-war average, while the value rose by only 107 per cent. from Rs. 5,76 lakhs to Rs. 11,93 lakhs, due to low prices. Java alone was responsible for this increase. The local quotations for white Java, which had touched Rs. 53 in July 1920, opened in April 1921 at Rs. 36, and fell almost continuously till December when it reached Rs. 14, after which there was a recovery to Rs. 21 at the close of the year. Imports of molasses fell from 90,000 tons to 58,000 tons.

Metals and manufactures thereof.

605. After a year of great activity, imports of iron and steel, which is the most important item in the metal trade, decreased in 1921-22 by 31 per cent. to 229,000 tons, and the value by 40 per cent., as compared with 1920-21. Imports of wrought iron and steel from the United Kingdom fell to 125,614 tons from 244,180 tons and from the United States to 35,945 tons from 49,920 tons, while imports from Germany and Belgium rose to 14,452 tons and 45,098 tons from 5,360 tons and 26,652 tons, respectively. Imports of brass, copper, lead and aluminium, whether wrought or unwrought, all declined in varying degrees, the aggregate value for these items being Rs. 1,02 lakhs as against Rs. 2,05 lakhs in 1920-21. There were larger receipts of unwrought tin (all from the Straits) from 1,190 tons, valued at Rs. 37 lakhs, to 1,669 tons, worth Rs. 46 lakhs. Imports of zinc and quicksilver also increased in quantity.

Railway plant and rolling stock.

606. The total value of imports of railway plant and rolling stock, both on private and Government account, rose from Rs. 7,65 lakhs to Rs. 9,71 lakhs (Rs. 8,70 lakhs being on private account). The increase was solely due to larger receipts of carriages and wagons, which advanced from Rs. 3,77 lakhs to Rs. 6, 62 lakhs, the United Kingdom accounting for 98 per cent. of the total imports.

Mineral oil.

607. A contraction in the importation of fuel oil (from 16 to 3 million gallons) and an improvement by 7 million gallons in the supply of kerosene oil from Burma with a corresponding decline of 8 million gallons in receipts from Borneo were the features of the year's trade in mineral oil. Although imports of American kerosene oil, and of lubricating and batching oils were well maintained, the total foreign imports declined from 55 to 35 million gallons. Imports of kerosene oil from foreign countries and from Burma amounted to 66 million gallons. Imports of lubricating and batching oils from Borneo increased by 2 million gallons, but those from the United States declined by one million gallons and supplies from Burma fell away by nearly 2 million gallons.

Hardware.

608. Imports of hardware declined from Rs. 3,12 lakhs to Rs. 2,13 lakhs, the United Kingdom contributing 65 per cent., the United States 21 per cent., Germany 5 per cent., and Japan and Sweden together the remainder.

Salt.

609. The total imports of salt amounted to 360,000 tons against 502,000 tons in 1920-21. Hamburg salt had its market again. As the year started with heavy stocks, there was a big reduction of imports of salt from foreign countries. Tunis salt dropped out again. All other qualities including Aden were imported in somewhat smaller quantities. Prices rose during the six months, April to September, but fell back to a lower level by the end of December and remained at that level for the rest of the year, the quotations for Aden salt being Rs. 107 per hundred maunds in April, Rs. 135 in August and Rs. 90 in December and March.

610. The total imports of liquors decreased in quantity by 8 per cent. to 1,352,000 gallons and in value by 22 per cent. to Rs. 1,05 lakhs. The imports of ale, beer, and porter from the United Kingdom declined by 42,000 gallons to 517,000 gallons, while the receipts from Germany increased from 9,000 gallons to 76,000 gallons. The quantity of brandy imported decreased by more than 56 per cent. to 43,000 gallons, nine-tenths of which was received from France. Imports of whisky fell from 229,000 gallons to 196,000 gallons, and almost the entire quantity came from the United Kingdom. Wine showed a decrease from 116,000 gallons to 51,000 gallons. **Liquors.**

611. The value of the trade in motor vehicles (cars, cycles and waggons) amounted to Rs. 71 lakhs, a heavy decrease from the figure (Rs. 4,22 lakhs) recorded for 1920-21. 1,002 cars were imported against 6,445 and 261 motor cycles against 1,790 in 1920-21. The number of tyres imported was 53,012, valued at Rs. 40 lakhs, and of tubes 54,828, valued at Rs. 6 lakhs, being lower than the preceding year by 46 per cent. in the case of tyres and 35 per cent. in the case of tubes. **Motor vehicles.**

EXPORTS OF MERCHANDISE.

612. The following table shows the values of the principal articles of the export trade of Calcutta and their comparative importance:— **Foreign trade.**

	Average for the 5 years, 1909-10 to 1913-14.	Average for the 5 years, 1914-15 to 1918-19.	1919-20.	1920-21.	1921-22.	Percentage of proportion to total merchandise exported.
	Rs.	Rs.	Rs.	Rs.	Rs.	
Jute manufactures	20,17,56,519	40,07,13,885	49,82,28,096	52,84,61,001	29,91,54,374	34·83
Jute, raw	19,84,43,720	12,03,33,095	22,68,91,552	15,83,03,440	13,71,08,939	15·96
Tea	8,96,12,790	12,85,10,614	14,24,48,927	7,32,17,176	13,13,63,816	15·29
Lac	2,16,19,160	2,53,92,983	7,22,10,576	7,57,74,430	7,90,80,520	9·21
Hides and skins, raw	7,59,54,271	5,13,57,391	13,57,13,452	2,76,97,085	3,82,05,215	4·45
Cotton, raw	1,23,30,432	96,21,605	3,46,11,567	1,55,97,533	3,68,69,209	4·29
Seeds	4,92,07,113	2,25,23,662	6,17,86,993	3,60,98,561	3,05,79,483	3·56
Opium	6,37,91,756	2,17,33,939	1,96,02,620	2,52,58,865	2,05,38,975	2·39
Articles (not specified) exported by post.	8,04,230	19,37,088	62,89,962	1,04,05,197	1,45,20,681	1·69
Metals and ores	36,43,472	80,26,148	78,60,575	1,61,04,675	1,14,78,740	1·34
Grain, pulse and flour	8,13,60,916	2,40,38,422	1,59,97,191	92,70,787	94,11,734	1·10
Mica	29,92,225	50,51,981	75,30,112	90,50,245	55,47,242	·65
Manures	27,19,022	23,13,450	5,85,61,126	53,52,620	53,31,465	·62
Saltpetre	34,22,785	60,99,540	48,70,018	54,60,548	38,57,198	·45
Dyeing and tanning substances—other than indigo.	22,27,633	27,75,388	59,74,087	25,91,829	38,40,172	·45
Oil cake	29,47,779	17,03,993	37,72,049	16,69,079	33,22,454	·39
Indigo	23,11,041	85,21,279	72,52,031	20,26,456	32,71,327	·38
Woollen manufactures	13,26,119	9,53,055	37,73,435	41,92,884	28,79,702	·34
Hemp, raw	37,91,262	49,91,954	1,06,83,033	54,63,896	26,93,313	·31
Provisions and oilman's stores ...	22,23,886	22,19,575	20,33,328	23,15,890	25,25,961	·29

The total exports of Indian merchandise amounted to Rs. 87 crores, showing a decrease in value of 19 per cent., as compared with the preceding year. The staple articles of export are especially noticed below.

613. The exports of raw jute from Calcutta by sea declined slightly from 2·58 to 2·56 million bales or by 1 per cent., but on account of low prices the value dropped by 13 per cent. from Rs. 16 crores to Rs. 14 crores. Chittagong shipped 52,000 bales, valued at Rs. 31 lakhs, against 56,000 bales, valued at Rs. 50 lakhs, in 1920-21. The leading customer, the United Kingdom, received 245,000 bales less from Calcutta than in 1920-21. Germany was the best customer throughout the year, although there was a set-back in the autumn due to the heavy fall in the value of German marks. She accounted for nearly one-third of the trade, increasing her purchases from **Raw jute and jute manufactures.**

395,000 to 802,000 bales. France and Italy also increased their takings, but exports to the United States fell from 612,000 to 363,000 bales. Shipments to the Netherlands advanced from 44,000 to 55,000 bales. Consequent on a smaller trade, collections of jute cess for the Calcutta Improvement Trust dropped from Rs. 9½ lakhs in 1920-21 to Rs. 8 lakhs. Shipments of gunny bags declined considerably from 532 millions, valued at nearly Rs. 24 crores, to 385 millions, valued at Rs. 14 crores, in the year under report. The exports of gunny cloth also declined from 1,352 million yards, valued at Rs. 28½ crores to 1,120 million yards, valued at Rs. 16 crores. There were appreciable increases in the exports of gunny bags to Japan, Cochin-China, Siam, and South Africa, but all the other leading markets showed a decrease, which was most striking in the case of South American countries. The United States, the United Kingdom, Belgium, and France also showed a heavy falling-off. The contraction in shipments of cloth was due mainly to the very much reduced business done with the United States, the Argentine, and the United Kingdom. France restricted her demands almost to a vanishing point.

Tea.

614. The trade in tea had passed through its worst period of depression in the year 1920-21, but made a great recovery in 1921-22, the most satisfactory feature being a considerable improvement in the prices realized. The total quantity exported from Calcutta increased by 23 per cent. from 185 to 227 million lbs., while the total value rose by 86 per cent. from Rs. 7 crores to Rs. 13 crores. Shipments from Chittagong fell to 57 million lbs. against 66 million lbs. in 1920-21. Exports from Calcutta of tea invoiced from gardens totalled 154 million lbs. as compared with 133 million lbs. sent in 1920-21, while the quantity of locally purchased tea exported increased from 51 to 73 million lbs. In consequence of the enhancement of railway rates and reduction of steamer freights, coastwise shipments from Calcutta, mainly to Bombay, rose from 2;79 to 11;63 million lbs. Calcutta had an unusual import of 143,707 lbs. from Java, which was a peculiar feature in the tea market. The United Kingdom, as usual, took the largest share, namely, 188 million lbs. Canada and the United States increased their direct purchases of tea from Calcutta by about 4 million lbs. each. Shipments to Africa increased by 3 millions lbs. chiefly to Egypt and Cape Colony, and to Australasia by 2 million lbs., while 1·7 million lbs. went to Mesopotamia. Shipment of tea waste continued to diminish and totalled only 3 million lbs., being less than a half of what was exported in 1920-21. The average price realized in Calcutta at the auction sales during 1921-22 was 10 annas 1 pie against 5 annas 1 pie in the previous year.

Lac.

615. The exports of lac increased by 41 per cent. from 308,000 cwts. to 434,000 cwts., the highest total recorded since 1909-10. The value rose by 4 per cent. only from Rs. 7½ crores to Rs. 8 crores. The United States took the bulk of the shipments of button, lac and shellac, having increased her purchases to 254,000 cwts., the United Kingdom coming second with 86,000 cwts. Germany, Japan and France also recorded marked increases. The price of T.N., in the first week of April 1921, was Rs. 90 and the closing rate in March 1922, was Rs. 197 per maund. With effect from 1st January 1922, a cess of 4 annas per maund on shellac and 2 annas per maund on refuse lac has been imposed, the net proceeds of which are made over to the Indian Lac Association for the purpose of improving the method of cultivation and manufacture of lac in India.

Hides and skins, raw.

616. The trade in hides and skins showed a remarkable recovery after a severe set-back experienced in the previous year. The total quantity shipped increased by 80 per cent. from 16,870 tons to 30,400 tons, and the value by 37 per cent. from Rs. 2¾ crores to nearly Rs. 4 crores. Raw hides rose from 12,318 tons to 19,680 tons, but on account of low prices due to a heavy stock, the value did not show any appreciable change, and stood at Rs. 141·43 lakhs as against Rs. 141·69 lakhs in 1920-21. The quantity of raw skins also increased to 9,823 tons from 3,679 tons and the value thereof to Rs. 2,40 lakhs from Rs. 1,34 lakhs. Germany recovered her ground in the hide market and took more than a half of the total quantity shipped. Italy maintained her position as the second best purchaser of hides. Spain also

showed an improvement, but exports to France and the Netherlands fell off much more than in 1920-21. Shipments of tanned and dressed hides and skins were restricted, having dropped from 54 tons to 14 tons and the value from Rs. 2½ lakhs to a little over half a lakh.

Cotton, raw.

617. Consequent on a bumper crop of 1921-22, the Central Provinces and Berar, from which Calcutta's supplies are chiefly obtained, produced 1,133,000 bales or more than twice as much as in the previous year. Shipments accordingly surpassed all previous records. Japan and China took the bulk of the trade. Exports of Kapok decreased from 325 tons to 221 tons.

Oil-seeds.

618. Considering the depression in the British oilseed-crushing industry, the exports of linseed were well maintained; and the quantity shipped from Calcutta increased from 105,100 tons to 119,840 tons. Up-country merchants had to give up holdings and to accept greatly reduced prices, on account of a bumper crop in the Argentine. The share of the United Kingdom in the trade fell from 81,756 tons to 58,952 tons; but shipments to France and Belgium greatly increased, the former having taken 20,400 tons and the latter 17,500 tons. The exports of rape seed, castor, cotton and sesamum from Calcutta were negligible as compared with those of rape seed from Karachi and of castor, cotton and sesamum from Bombay.

Opium.

619. The exports of opium on private account declined from 7,659 chests to 6,080 chests, and those made by Government totalled 2,850 against 3,165 in the preceding year; 2,700 chests were for the Straits Settlements, 120 chests for Hongkong, and 30 chests for Ceylon Governments. Of the shipments on private account, 2,250 chests went to Java, 1,600 chests to Cochin China, and 1,500 chests to Siam. Shipments to Japan showed an extraordinary contraction from 750 chests to 100 chests. At the Calcutta Opium sales the number of chests sold contracted from 1,550 chests to 935 chests only in the year under review.

Metals and ores.

620. The quantity of manganese ore exported fell from 375,000 tons to 234,000 tons and the value from Rs. 94 lakhs to Rs. 58 lakhs. Exports to the United Kingdom decreased from 134,000 tons to 40,000 tons and to the United States from 116,000 tons to 15,000 tons on account of much smaller production of steel in those countries. Belgium increased her demand from 67,000 tons to 119,000 tons and the Netherlands, Germany, and Italy all placed much larger orders. Japan also took 1,750 tons against 500 tons in the preceding year. Shipments of pig iron advanced from 48,300 tons to 59,000 tons, but lower prices reduced the value from Rs. 56 lakhs to Rs. 53 lakhs. Japan increased her demands from 47,000 tons to 58,000 tons. Tata's and the Bengal Iron Company between them produced 368,000 tons of pig iron in 1921 against 311,700 tons in 1920. Shipments of chromite increased from 500 tons to 607 tons, Japan taking 477 tons and Belgium 130 tons.

Grain, pulse and flour.

621. Owing to the strict control throughout the year of exports of food-grains, pulse and flour to foreign countries, the total quantity of all descriptions exported stood a little under the low figure of 37,000 tons. A limited quantity of old table rice was released for export and 9,334 tons were shipped to Cuba, 1,100 tons to the United States, and 393 tons to the United Kingdom. More than 100,000 tons of wheat arrived in Calcutta from Australia. Bengal's rice crop in 1921-22 was better by over a million tons than the yield in 1920-21, and coastwise exports of rice from Burma were reduced from 231,000 to 185,000 tons. Prices were lower than in 1920-21.

Mica.

622. Exports of mica fell from 62,000 cwts., valued at Rs. 90 lakhs, to 21,000 cwts., worth Rs. 55 lakhs. This heavy fall is due to the restricted output of 1921 consequent on the low prices realized in the two preceding years. Shipments to the United Kingdom fell from 32,840 cwts. to 11,560 cwts. and to the United States from 26,400 cwts. to 6,500 cwts. Shipments of block mica decreased from 7,415 cwts. to 3,370 cwts. and splittings from 54,800 cwts. to 18,000 cwts. There was an interesting shipment of 5½ tons of micanite plates to the United Kingdom during the year.

Saltpetre.

623. The total quantity of saltpetre exported declined from 306,000 cwts. to 220,000 cwts. or by 28 per cent., and the value decreased from

Rs. 54½ lakhs to Rs. 38½ lakhs by 30 per cent. Mauritius failed to repeat its extraordinary demand of the previous year, taking a total of 30,000 cwts. only against 108,000 in 1920-21, and the United States considerably reduced her purchases from 74,000 cwts. to 9,000 cwts. These losses far outweighed the recoveries in the exports to the United Kingdom from 31,000 cwts. to 74,000 cwts.

Distribution of Import and Export trade of Calcutta.

624. The following table shows the distribution of the Import and Export trade of Calcutta :—

	Imports (Merchandise).								Exports (Merchandise).							
	Average for the five years, 1909-10 to 1913-14.		Average for the five years, 1914-15 to 1918-19.		1920-21.		1921-22.		Average for the five years 1909-10 to 1913-14.		Average for the five years, 1914-15 to 1918-19.		1920-21.		1921-22.	
	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.	Rs. (lakhs).	Per cent.
United Kingdom ...	39,24	70·3	34,72	60·7	77,35	65·1	64,25	63·2	21,99	25·8	26,35	30·1	22,58	20·8	22.06	25·4
British Possessions ...	2,16	3·8	3,50	6·1	4,38	3·7	5,63	5·5	16,00	18·7	14,16	16·2	16,86	15·6	11,34	13·0
United States ...	1,53	2·7	4,25	7·4	14,06	11·8	8,76	8·6	14,00	16·4	22,26	25·5	33,93	31·3	22,31	25·6
Java	5,16	9·2	6,45	11·3	6,61	5·5	12,47	12·2	1,07	1·2	1,62	1·8	2,25	2·0	1,85	2·1
Japan	1,09	1·9	5,10	8·9	7,34	6·1	3,51	3·4	1,33	1·5	2,26	2·6	3.28	3·0	5,31	6·1
Germany	2,63	4·7	30	·5	1,01	·8	1,40	1·3	9,10	10·6	62	·7	2,91	2·6	5,77	6·6
France	40	·7	27	·5	73	·6	55	·5	3,49	4·1	3,03	3·5	3,82	3·5	2,77	3·2
Belgium	81	1·4	11	·2	1,75	1·4	1,68	1·6	1,47	1·7	8	·09	2,40	2·2	1,58	1·8
Italy	35	·6	42	·7	1,18	1·0	59	·5	2,01	2·3	2,45	2·8	1,26	1·1	1.24	1·4
South America ...	.....	.....	1	·02	.....	.....	.....	.....	3,29	3·8	4,74	5·4	5,45	7·8	3,41	3·9
Total including other Countries.	55,83	100	57,24	100	118,70	100	1,01,54	100	85,22	100	87,35	100	1,08,28	100	86,99	100

The total trade of Calcutta with the United Kingdom amounted to Rs. 86 crores against Rs. 99 crores in 1920-21, but her share in the grand total increased from 44 to 46 per cent. Her share in the import trade declined from 65 to 63 per cent. There was a small decrease in the total exports to the United Kingdom, the great recovery in the tea trade compensating for the serious deficiency in the jute and jute goods and linseed trades. On account of large purchases of wheat, the position of Australia in the import trade improved. Imports from Hongkong and the Straits Settlements were steady, but those from other countries fell off, the chief declines were under salt from Egypt, copra from Ceylon, sugar from Mauritius and motor cars from Canada. On the export side, Australia with her reduced purchases of gunnies and linseed was the biggest defaulter. In less degree, all other British Possessions except South Africa shared in the decline. Germany resumed the leading place among European countries, her combined trade having advanced from Rs. 4 crores to more than Rs. 7 crores. This increase was not so prominent in the amount of manufactured goods she exported as in the large quantities of raw materials she imported, the value of the former showing a rise of Rs. 39 lakhs and that of the latter an increase of no less than Rs. 2,86 lakhs. Under imports, striking progress was made in machinery and mill-work and iron and steel. As for exports, big increases were registered in her purchases of raw jute, hides and lac. Imports from Belgium showed a slight falling off, although the chief item—iron and steel—recorded an increase. She took much less raw jute and gunnies. Italy's purchases from India were well maintained. The trade with the United States of America suffered severely from the general depression. Imports of motor cars and motor cycles showed a decrease of Rs. 2,65 lakhs, and paper, provisions, lamps, typewriters and cigarettes also declined heavily. Exports to the United States were also much restricted, and the greatest loss was under jute manufactures, which showed a decrease of over Rs. 8 crores. The depression in the jute trade was responsible for a decline in the export trade with South America. Java doubled in value her supply of sugar, and thus took the first place, while Japan lost much of her ground,

the total being less than a half of last year's, owing to big reductions under cotton yarn and cloth. Under exports Japan increased her purchases of jute manufactures from Rs. 72 lakhs to Rs. 1,32 lakhs. Shipments of raw cotton to China rose by more than a crore of rupees.

II.—FRONTIER TRADE.

[Report on the Frontier Trade of Bengal, 1921-22.]

625. The total value of the trade with the adjacent States of Nepal, Sikkim, Tibet and Bhutan in the year ending 31st March 1922, amounted to Rs. 1,98 lakhs, a decrease of Rs. 46 lakhs or 19 per cent., as compared with 1920-21, and an increase of Rs. 75 lakhs or 61 per cent. as compared with the pre-war year. The figures exclude transactions in treasure, the registration of which was as usual somewhat defective. The value of the imports decreased from Rs. 2,01 lakhs to Rs. 1,63 lakhs in 1921-22, mainly as a result of smaller imports from Tibet and Nepal. The export trade also declined from Rs. 43 lakhs to Rs. 34 lakhs or a decrease of Rs. 9 lakhs or 21 per cent., due to smaller despatches of manufactured articles across the frontier of Bengal. **Total trade.**

626. The principal articles of imports into Bengal were fruit, vegetables and nuts, valued at Rs. 80 lakhs, to which Sikkim contributed Rs. 50 lakhs and Nepal Rs. 27 lakhs; animals (living) Rs. 41 lakhs, in which Nepal's share was Rs. 32 lakhs and Sikkim's Rs. 6 lakhs; wool (raw) worth Rs. 18 lakhs, which was received almost entirely from Tibet; spices Rs. 6 lakhs supplied mostly by Sikkim; provisions Rs. 4,76 lakhs sent by Nepal and Sikkim; grain and pulse Rs. 4½ lakhs supplied chiefly by Sikkim, and hides and skins Rs. 3 lakhs contributed chiefly by Tibet. **Imports.**

627. Under exports from Bengal, manufactured articles such as cotton manufactures, chiefly piece-goods, metals, silk and woollen piece-goods are the staple articles. The exports of cotton manufactures were valued at Rs. 11 lakhs, twist and yarn accounting for Rs. 1 lakh and piece-goods Rs. 10 lakhs. Tibet took cotton piece-goods worth Rs. 4 lakhs, Sikkim Rs. 3 lakhs, and Nepal about Rs. 2 lakhs. The total value of exports of metals and manufactures thereof amounted to Rs. 3 lakhs against Rs. 6¾ lakhs in the preceding year, Tibet being the chief customer. The total value of exports of provisions amounted to Rs. 4 lakhs, the principal recipient being Sikkim (Rs. 3¼ lakhs). The exports of grain and pulse, chiefly rice, were valued at Rs. 2⅓ lakhs; and Sikkim alone took five-eighths of the total quantity wth a value of Rs. 1½ lakhs. The value of oils exported amounted to over Rs 1½ lakhs. **Exports.**

III.—COASTING TRADE.

[Report on the Maritime Trade of Bengal for 1921-22.]

628. The total value of the coasting trade of Bengal, including Government stores, amounted to Rs. 42½ crores and showed an increase of about Rs. 4 crores, due to general increases, both in imports from, and exports to, the Madras and Bombay Presidencies. Exports were further stimulated by abnormal shipments of rice to Madras and Sind. **Coasting trade.**

629. Imports of private merchandise remained practically on the same level as in the previous year, but exports increased from Rs. 14 crores to nearly Rs. 18 crores. The total trade of Calcutta with other Indian ports increased from Rs. 33 crores to Rs. 38 crores. The total imports into Calcutta advanced by one crore to Rs. 22 crores. The increase was due to the general improvement in imports from Bombay and Madras. Imports from Bombay of cotton goods, including twist and yarn, advanced from Rs. 6,63 lakhs to Rs. 7,21 lakhs. **Imports.**

Burma increased her despatches of mineral oil from Rs. 4,05 lakhs to Rs. 4,64 lakhs, and sleepers of wood for railways from Rs. 7 lakhs to Rs. 49 lakhs, but there was a set-back in her exports of rice and teak, which

fell from Rs. 3,64 lakhs, and Rs. 1,54 lakhs to Rs. 2,83 lakhs and Rs. 1,19 lakhs, respectively. Madras increased her shipments of cocoanut oil from Rs. 39 lakhs to Rs. 66 lakhs and of pepper and cardomoms from Rs. 6 lakhs to Rs. 16 lakhs. Other noticeable increases were in stick lac from Burma from Rs. 32 lakhs to Rs. 48 lakhs, and raw cotton from Bombay and Madras from Rs. 31 lakhs to Rs. 44 lakhs. Imports of coir manufactures with larger receipts from Alleppy rose from Rs. 19 lakhs to Rs. 26 lakhs. Imports of salt from Bombay and Madras advanced from Rs. 9 lakhs to Rs. 11 lakhs and from Rs. 23,000 to Rs. 9 lakhs, respectively.

Exports.

630. The total export trade advanced from Rs. 12⅓ crores to about Rs. 16 crores. Grain, pulse and flour contributed largely to the increase, the total value expanding from Rs. 1,58 lakhs to Rs. 3,79 lakhs. The value of rice shipments alone rose from 31,000 tons, valued at Rs. 68 lakhs mostly to Burma and Madras Ports, were doubled from Rs. 44 lakhs to Rs. 88 lakhs. Wheat flour rose by Rs. 5 lakhs to Rs. 46 lakhs, Burma's share being Rs. 44 lakhs. Jute manufactures, though displaced from their leading position, continued in good demand, the value having risen from Rs. 2,80 lakhs to Rs. 3,00 lakhs; Burma as usual took most of the bags and Bombay the cloth. Despatches of coal decreased in quantity from 1,408,000 tons to 1,282,000 tons, but the value on account of higher prices increased from Rs. 1,75 lakhs to Rs. 1,83 lakhs. Tea recorded a remarkable improvement by Rs. 36 lakhs to Rs. 47 lakhs, sales to Bombay mostly for the Persian Gulf, rising from Rs. 3 lakhs to Rs. 33 lakhs. Other articles of importance were spices (Rs. 49 lakhs), provisions, chiefly ghi (Rs. 41 lakhs), unmanufactured tobacco (Rs. 37 lakhs), and oils, mostly linseed and mustard (Rs. 15 lakhs). Of articles of foreign manufacture, in addition to cotton twist and yarn, there were marked increases under cotton goods by Rs. 13 lakhs to Rs. 59 lakhs, due to larger shipments to Burma, and sugar by Rs. 17 lakhs to Rs. 40 lakhs, chiefly to Madras.

Government transactions.

631. Imports of Government transactions (excluding treasure) decreased by Rs. 12 lakhs to Rs. 20 lakhs, while exports advanced from Rs. 61 lakhs to Rs. 85 lakhs. The decline in the former was due to smaller receipts of arms and ammunition and drugs and medicines, while the increase in the latter was due to larger shipments of opium, paper and pasteboard, arms and ammunition, and stationery.

IV—TRADE BY RAILWAY AND RIVER.

[Report on the Trade carried by Rail and River in Bengal during 1921-22.]

Rail and river borne trade.

632. The quantity and value of the Inland Trade of Bengal are shown the following table:—

Year.		Imports into Bengal (including Calcutta) from other provinces.	Exports from Bengal (including Calcutta) to other provinces.	Imports into Calcutta from the rest of Bengal.	Exports from Calcutta to the rest of Bengal.
1920-21	Mds. ...	208,308,000	90,177,000	106,368,000	32,826,000
	Rs. ...	80,16,15,000	83,75,24,090	68,29,14,000	52,31,65,000
1921-22	Mds. ...	178,520,000	85,248,000	91,034,000	31,552,000
	Rs. ...	67,80,22,000	85,78,66,000	60,22,59,000	49,03,09,008

The total imports into Bengal including Calcutta, were valued at Rs. 60 crores to which Bihar and Orissa contributed 36 per cent., Assam 19 per cent., the United Provinces 18 per cent., Bombay 9 per cent., the Central Provinces and Berar 8 per cent., Madras 5 per cent., and the Punjab 2 per cent. Of the total exports (Rs. 86 crores) 34 per cent. went to Bihar and Orissa, 27 per cent to the United Provinces, 11 per cent. to the Punjab, 10 per cent. to Assam, 5 per cent. to the Central Provinces and Berar, about 4 per cent., to Madras and Bombay each, and 2 per cent. to Central India.

633. The principal articles of import into Bengal, including Calcutta, were—from Bihar and Orissa, lac (Rs. 3,97 lakhs), oilseeds, chiefly linseed and rape and mustard seed (Rs. 3,65 lakhs), grain and pulse, chiefly gram and wheat (Rs. 3,55 lakhs), coal and coke (Rs. 2,64 lakhs), iron and steel (Rs. 1,80 lakhs), jute raw (Rs. 1,05 lakhs), hides and skins (Rs. 96 lakhs), railway materials (Rs. 84 lakhs), tobacco (Rs. 56 lakhs), fruits, vegetables, and nuts (Rs. 43 lakhs), marble and stone (Rs. 39 lakhs), spices, chillies (Rs. 36 lakhs), metallic ores (Rs. 36 lakhs), hemp (Rs. 33 lakhs), indigo (Rs. 31 lakhs), ghi (Rs. 26 lakhs), saltpetre (Rs. 25 lakhs), and sugar (Rs. 19 lakhs; from the United Provinces, grain and pulse, chiefly wheat (Rs. 2,32 lakhs), oilseeds (Rs. 2,18 lakhs), lac (Rs. 2,11 lakhs), opium (Rs. 1,15 lakhs), ghi (Rs 97 lakhs), hides and skins (Rs. 91 lakhs), wool manufacturers—carpets and rugs (Rs. 28 lakhs), hemp (Rs. 28 lakhs), cotton, raw (Rs. 25 lakhs), saltpetre (Rs. 11 lakhs), and sugar (Rs. 9 lakhs); from Assam, tea (Rs. 8,78 lakhs), grain and pulse (Rs. 70 lakhs), timber (Rs. 54 lakhs), jute, raw (Rs. 53 lakhs), oilseeds (Rs. 51 lakhs), lac (Rs. 38 lakhs), kerosene oil (Rs. 32 lakhs), and hides and skins (Rs. Rs. 10 lakhs); from the Bombay Presidency, including port cotton manufacturers (Rs. 5,28 lakhs), metals (Rs. 12 lakhs), and cotton, raw (Rs. 4 lakhs); from the Madras Presidency, including ports, cotton manufactures (Rs. 1,22 lakhs), oilseeds chiefly groundnuts (Rs. 56 lakhs), spices, chiefly pepper (Rs. 35 lakhs), ghi (Rs. 34 lakhs), oils (Rs. 17 lakhs), leather, unwrought (Rs. 11 lakhs), and sugar (Rs. 9 lakhs); from the Punjab, grain and pulse, chiefly wheat and wheat flour (Rs. 20 lakhs), cotton, raw (Rs. 16 lakhs), and woollen piece-goods, Indian (Rs. 7 lakhs); and from the Central Provinces and Berar, cotton, raw (Rs. 3,65 lakhs), metallic ores (Rs. 40 lakhs), and cotton manufactures (Rs. 29 lakhs). **Imports by rail and river into Bengal.**

634. The exports from Bengal, including Calcutta, to Bihar and Orissa, comprised mainly—cotton manufactures (Rs. 6,35 lakhs), metals and manufactures thereof (Rs. 5,92 lakhs), railway materials (Rs. 3,49 lakhs), grain and pulse, chiefly rice (Rs. 2,89 lakhs), oils, chiefly kerosene (Rs. 1,65 lakhs), sugar (Rs. 1,59 lakhs), salt (Rs. 90 lakhs), coal and coke (Rs. 85 lakhs) and gunny bags and cloth (Rs. 75 lakhs); to the United Provinces, sugar (Rs. 5,70 lakhs), cotton manufactures (Rs. 3,37 lakhs), metals and manufactures thereof (Rs. 3,24 lakhs), grain and pulse, chiefly rice (Rs. 2,90 lakhs), railway materials (Rs. 1,34 lakhs), oils, chiefly kerosene (Rs. 1,11 lakhs), gunny bags and cloth (Rs. 72 lakhs), coal and coke (Rs. 60 lakhs), lac (Rs. 48 lakhs), and spices (Rs. 38 lakhs); to the Punjab, sugar (Rs. 2,38 lakhs), cotton manufactures (Rs. 1,87 lakhs), grain and pulse (Rs. 1.19 lakhs), iron and steel (Rs. 84 lakhs), coal and coke (Rs. 46 lakhs), gunny bags and cloth (Rs. 40 lakhs), and railway material (Rs. 33 lakhs); to Assam cotton manufactures (Rs. 2,87 lakhs), iron and steel (Rs. 98 lakhs), grain and pulse (Rs. 62 lakhs), oils (Rs. 57 lakhs), sugar (Rs. 48 lakhs), spices (Rs. 31 lakhs), and salt (Rs. 26 lakhs); to the Bombay Presidency, including port, coal and coke (Rs. 1,02 lakhs), iron and steel (Rs. 23 lakhs), gunny bags and cloth (Rs. 16 lakhs), grain and pulse (Rs. 15 lakhs), tea, Indian (Rs. 15 lakhs), and sugar (Rs. 7 lakhs); to the Central Provinces and Berar, grain and pulse, chiefly rice (Rs. 1,08 lakhs), sugar (Rs. 1,01 lakhs), iron and steel (Rs. 33 lakhs), kerosene oil (Rs. 29 lakhs), coal and coke (Rs. 27 lakhs), gunny bags and cloth (Rs. 24 lakhs), and cotton manufactures (Rs. 14 lakhs); to the Madras Presidency including ports, grain and pulse (Rs. 1,12 lakhs), cotton manufactures (Rs. 80 lakhs), iron and steel (Rs. 45 lakhs), and gunny bags and cloth (Rs. 10 lakhs); and to Central India, sugar, chiefly refined (Rs. 81 lakhs), railway materials (Rs. 45 lakhs), grain and pulse, chiefly rice (Rs. 13 lakhs), and coal and coke (Rs. 11 lakhs). **Exports by rail and river from Bengal.**

SUMMARY.

635. The total value of the trade (external exports and imports and internal) carried by rail and river was estimated at Rs. 2,73 crores as against Rs. 2,98 crores in 1920-21. Imports into Bengal, including Calcutta, from other provinces fell by 15 per cent. from Rs. 80 crores to Rs. 68 crores. Exports from Bengal, including Calcutta, to other provinces increased from Rs. 84 to Rs. 86 crores, or about 2 per cent. **Rail and river borne trade.**

PUBLIC WORKS.

Establishment.

Electrical Division.

636. In order to meet present economic conditions the pay of the executive staff of the Electrical Division was revised with effect from the 1st January 1921 on a time-scale basis, *viz.*, 3 Electrical Assistant Engineer on Rs. 250—20—550 (efficiency bar)—25—750 per mensem, 3 Electrical Upper Subordinates on Rs. 80 to Rs. 520 (efficiency bars at 135 and 200) per mensem, 4 Electrical Overseers on Rs. 60—5—110 (efficiency bar)—155—125—10—225 per mensem with a selection grade of Rs. 250, and 3 Electrical Lower Subordinates on Rs. 50—5/2—100 per mensem.

Mymensingh Partition Division.

637. The Mymensingh Partition Division, which was formed in June 1920 for works in connection with the partition of the Mymensingh district, was closed down in the middle of 1921, the demand for funds for the Mymensingh Partition Scheme having been refused by the Legislative Council.

Appointment of Advisory Committee.

638. The Government of India having referred to this Government in November 1921, certain questions arising out of the proceedings of a conference on engineering education held at Simla in July 1921, a Committee consisting of the following members was appointed by the Government of Bengal to advise on those questions and certain other questions connected with the training and selection of candidates for the Public Works Department:—

(1) Mr. C. P. Walsh, Secretary, Public Works Department, Bengal (Chairman); (2) the Principal, Bengal Engineering College, Sibpur; (3) the Chief Engineer, Public Health Department, Bengal; (4) Rai Sailendra Nath Banerji Bahadur, Officiating Superintending Engineer, Irrigation Department, Bengal; (5) Mr. Prabhat Nath Banerjee, M.A. (Cantab), Resident Engineer, of the firm of Messrs. Martin & Co., and Lecturer of the Bengal Engineering College; and (6) Mr. T. H. Richardson, Professor, Bengal Engineering College (Secretary), with Messrs. Aslett, Chief Engineer, East Indian Railway, and C. J. Henderson, Principal, Ashanullah School of Engineering, Dacca, as co-opted members. The Committee submitted its report in May 1922, and the report is now under the consideration of Government.

With the permission of the Government of India, the Government of Bengal sanctioned with effect from the 5th November 1921 an increase of from 75 to 100 per cent. in the rate of bonus payable by Government to—

(1) Mr. H. A. Crouch, Consulting Architect, Bengal;
(2) Mr. W. I. Keir, Assistant Architect;
(3) Lieutenant-Colonel G. V. S. Myer, Assistant Architect;
(4) Mr. H. F. D. Jacob, Executive Engineer, Electrical Division; and
(5) Mr. W. D. Swinney, Plumbing Expert, Bengal,

on their subscriptions to the Special Provident Fund.

Buildings.

CIVIL WORKS—CENTRAL.

Salt.

639. Five temporary sheds were erected in the compound of the salt golas of Salkea. Improvements to the pucca drains round the new salt golas at Chittagong were made during the year.

Customs.

640. Electric lights and fans were installed in the office and residential portion of the Custom House at Budge Budge.

Post and Telegraph Office.

641. The four-storied building under completion on the site of the old arcade buildings in the compound of the General Post Office, Calcutta, for providing the increased accommodation required by the Postal Department was nearly completed and the work of installing electric lights and fans

and passenger lifts in the building was commenced. The installation of three pumps and goods lift in the proposed extension of the General Post Office, Calcutta, was taken in hand.

At the Telegraph storeyard Alipore, the two-storied building under construction as well as the extension of the office of the Chief Electricias were completed during the year and the following were in progress:—

Extension of the sanitary godown; construction of the import and export godown with cable and guarding House; and the work of extending the masonry sewers into Tolly's Nullah.

Electric lights and fans were provided in the quarters of the European foreman.

The extension of the combined Post and Telegraph office at Kushtea in the Nadia district, and additions and alterations to the combined Post and Telegraph office at Kalimpong were in progress. The work of constructing a combined Post and Telegraph office with Staff quarters at Darjeeling was finally completed during the year.

Secretariat Buildings.

642. The work of installing electric lights and fans in some of the rooms occupied by the Commercial Intelligence Department new Imperial Secretariat Building, No. 1, Council House Street, had to be stopped owing to paucity of funds.

Treasury and Currency.

643. The installation of additional lights and fans in the office of the Accountant-General, Bengal, Central Revenues, in the Treasury Buildings, Calcutta, was completed.

Residences for Government officials.

644. The Hastings House Buildings at Alipore with outhouses were converted into seven sets of residential quarters for the officers of the Government of India stationed in Calcutta.

Miscellaneous.

645. Electric lights and fans were installed in the office of the Agent for Government Consignments, Calcutta. An estimate was sanctioned for the acquisition of the Equitable Coal Company's Bungalow and land at Sitarampur for the residence of the Second Junior Inspector of Mines, but the acquisition proceedings remained pending with the Collector.

Printing.

646. Motors for driving printing machines were installed in the Central Press, Calcutta.

Archaeology.

647. The followings works at Gaur in the Malda district were in progress:—

Special repairs to Gumti gateway; provision of wire fencing round the compound of the Gumti gateway; and special repairs to the Darasbari *masjid* and Chamkatti *masjid*.

PROVINCIAL CIVIL BUILDINGS.

Revenue and Judicial Courts.

648. The following works were completed during the year:—

Construction of Collector's Court at Hijli; construction of Subdivisional Court, Munsifi, Sub-Treasury, and Guard House at Jhargram; a combined Sub-Treasury and Guard Room at Gaibandha in the Rangpur district; certain additions and improvements to the wall racks in the Treasury Strong Room at Malda; certain improvements to the Guard House attached to the Treasury buildings at Bogra; construction of a corrugated iron shed for the temporary housing of the records and *nazarat malkhana* at Alipur Duars in the Jalpaiguri district; extension of the Subdivisional Court building at Thakurgaon in the Dinajpur district; constructing a witness shed in the Criminal Court compound at Jalpaiguri; purchase of the Local Board Office at Naogaon in the Rajshahi district, for providing additional accommodation for the Subdivisional Court at that place; construction of a new Record Room for the collectorate at Faridpur; improvement of the strong room and Treasury Guard House attached to the Subdivisional Court at Jhrenidah; construction of Subdivisional Officer's Court building at Manikganj in the Dacca district; deepening tank No. 1 required for the Subdivisional Headquarters at Bajitpur in the Mymensingh district; construction of a temporary treble Munsifi at Madaripur in the Faridpur district: and reconstruction of the Judge's record room at Comilla.

The following works were in progress during the year:—

Construction of the office of the Bengal Survey Department at Chetla; construction of two-storied Civil Court buildings at Burdwan; construction of a combined Sub-Treasury and Guard Room at Kurigram in the Rangpur district; extension of the Munsif's Court at Ghatal in the Midnapore district; construction of new Subdivisional Court buildings at Alipur Duars in the Jalpaiguri district; extension of the Munsif's Court building at Naogaon in the Rajshahi district; provision of additional racks for the extra accommodation of records in the Judge's Court room at Dinajpur; constructing a Court building for the Sessions Judge, Sub-Judge and additional Munsiffs at Bogra; construction of Subdivisional buildings at Ramgarh in the Chittagong Hill Tracts.

Electric lights and fans were installed in the verandah of the ground floor, High Court, Calcutta.

Certain additions and alterations were made and iron record racks were provided in the Judge's Court at Berhampore and two rooms were added to the Nazir's godown attached to the Munsif's Court at Tamluk. The restoration of the Treasury building with record room attached to the Khas Tehsil office at Satkania in the Chittagong district; was commenced, but held up almost immediately owing to picketing by the inhabitants; certain persons forcibly obstructed the contractor in transporting Government materials to the site and destroyed a quantity of the materials collected. Materials were collected for filling up a ditch in the compound of the Munsif's Court at Nawabganj in he Rangpur district.

Secretariat offices.

649. Steel shelving record racks were erected for the Financial Department in their office on the 2nd floor of Block No. II, Writers' Buildings, Calcutta.

Agricultural.

650. The district Agricultural Farm buildings at Pabna were completed during the year.

The following works were in progress:—

Construction of certain buildings in connection with the establishdent of the Agricultural Middle School, Chinsura Farm, in the Hooghly district; construction of certain buildings and excavation of a tank in connection with the Agricultural Farm at Suri; construction of an Agricultural Farm building at Bankura.

The work of constructing buildings in connection with the Agricultural Farm at Sagardi in the Bakarganj district was completed.

In connection with the construction of buildings for the Agricultural Farm at Goalchamat (Faridpur), the raising of the site was completed and the rest of the work was deferred for lack of funds.

Industry.

651. Construction of a model silk-worm rearing house in the Sericultural nursery at Berhampore was in progress.

A plot of land was acquired in Corporation Street and Mott's Lane, Calcutta, for the construction of a technical school.

Excise.

652. Construction of a combined Liquor Ware House and Ganja Gola at Diamond Harbour and construction of Excise Inspector's quarters at Hijli were in progress.

Printing.

653. The work of constructing the main Block of the Bengal Secretariat Press at Chetla and the Superintendent's residence was in progress.

Circuit House.

654. The construction of the Circuit House at Hijili was completed during the year.

Subdivisional officers' and Munsifs' Residences.

655. The following works wre completed during the year:—

The construction of three sets of Deputy Magistrates' quarters, Sub-Deputy Magistrates' quarters and two Munsiffs' residences at Hijili; construction of Subdivisional Officer's residence, Sub-Deputy Collector's residence and Munsiff's residence at Jhargram; construction of residences for the Subdivisional Officers at Brahmanbaria and Rangamati; certain improvements to Munsiffs' quarters at Kurigram; and sinking of a masonry well in the Subdivisional Officer's residence at Nilphamari in the Rangpur district.

The following works were in progress :—

Construction of residences for two Munsifs at Ghatal and for three Munsifs at Bogra.

Residences for Government officials.

656. The construction of a residence for the Deputy Superintendent of Police at Hijli was completed. The construction of residences for the District Magistrate, Civil Surgeon, Joint Magistrate, and Superintendent of Police at Hijli, and the construction of residences for the Additional Sessions Judge and Sub-Judge at Bogra were in progress.

The construction of the residence for the Chief Justice of Bengal on a portion of the land at Porabazar was in progress, but the project was abandoned owing to the Legislative Council's refusal to vote the requisite grant. Arrangements were accordingly made for the sale of the land and the partially constructed building.

The project for the construction of residential flats on Government land at Porabazar, Calcutta, for the accommodation of officers under the Government of Bengal was held in abeyance for want of funds.

Registration.

657. The following works were completed during the year :—

Extension of the record room in the Registration office at Krishnagar; provision of planked ceiling for the Subdivisional Registration office at Gaibandha in the Rangpur district; certain improvements to the Sadar Registration office at Bogra; additions and alterations in the Settlement vernacular office to accommodate the Sadar Registration office at Rajshahi; construction of quarters for the Sub-Registrar at Monohurdi in the Dacca district.

Payments were made for acquiring land for the Registration office at Atrai in the Rajshahi district.

The following work was in progress during the year :—

Certain additions to and alterations in the Registration office at Rangpur.

Jails.

658. Marine Dockyard Shed No. 6 at Kidderpur was converted into a temporary jail for political prisoners. A temporary jail at Kanchrapara was started about the middle of January 1922, and very nearly completed during the financial year. Certain additions to and alterations in the Central Lunatic Asylum at Berhampore for the conversion of a portion of it into a female jail were taken up and codpleted during the year.

The following works were taken in hand and completed :—

The construction of a sub-jail at Jhargram; construction of the jail hospital at Jalpaiguri; certain protective works in the jail compound at Darjeeling; raising the compound of the sub-jail at Kurigram in the Rangpur district; constructing "D" wall in the enclosure wall in the jail at Jalpaiguri; certain additions and alterations to the boiled water storage system in the Rangpur Jail; extension of the sub-jail at Natore in the Rajshahi district; construction of a cell for the segregation of confessing prisoners in the sub-jail at Natore; construction of a new cookshed in the Dinajpur Jail; sinking a masonry well in the jail garden at Malda; construction of a hospital building in the jail at Faridpur; and constructing Assistant Jailor's quarters attached to the District Jail at Chittagong.

The following works were in progress :—

Providing iron gratings to the work shed in the ground floor of the prisoners barrack in the Rangpur Jail; certain improvements to the sub-jail at Kurigram in the Rangpur district; constructing a small district jail at Rangamati in the Chittagong Hill Tracts; and constructing jail buildings at Hijli.

Materials for the construction of a new sub-jail at Patuakhali were collected and foundation work started.

Medical.

659. The following works were completed :—

The construction of the medical school at Burdwan, and provision of hospital equipment and the erection of a disinfector in the Mitford Hospital at Dacca.

The construction of the Lunatic Observation Ward at Bhowanipore was in progress and all works excepting out-houses were completed.

Construction of two pavilions at the Campbell Hospital, Sealdah, for the accommodation of surgical cases was nearly completed.

At the Medical College Hospital, Calcutta, the new nurses' quarters were nearly completed and the construction of the new Eye Hospital was carried on as far as funds permitted.

An isolation ward, morgue and goomty were constructed in the compound of the Albert Victor Leper Asylum at Gobra, where some additions and alterations to the moribund ward were also carried out.

Land was acquired for the extension of servants' quarters, Medical College, Calcutta.

In connection with the extension of the Medical College, land at the southern end of the Medical College Street and the Eden Hospital Road was purchased from the Calcutta Corporation and the municipal roads traversing the area were closed to public traffic.

Education.

660. At the Bengal Engineering College, Sibpur, the conversion of the gymnasium into an assembly and examination hall and the extension of the Electro-technical Laboratory were nearly completed. A start was made on the construction of servants' quarters, garages and kitchen for the Professor's quarters. A piece of land was acquired for extending the college property and the reclamation of the low-lying ground north and east of the playing fields was nearly completed.

Electric lights and fans were installed in the temporary class room and tiffin room, Bethune College, Calcutta, and also in the Zilla School, Howrah.

The following works were in progress during the year:—

Construction of a Zilla school with attached hostels and quarters at Burdwan; certain works in connection with the septic tanks for both the schools at Dow Hill, Kurseong; construction of a Hindu Hostel for the Rajshahi College in five blocks with hostel Superintendent's quarters; construction of an additional Hostel for the Muhammadan students of the Rajshahi College; provision of skylights on the roof of the Chemical Laboratory attached to the Rajshahi College; construction of a *guru* training school building at Natore in the Rajshahi district; construction of an additional carpenters' shop for the Edward Industrial School at Bogra; construction of a three-foot diameter masonry well in the Rajbanshi Hostel attached to the Zilla School at Rangpur; and construction of a hostel with quarters for the Head Mistress and Assistant Mistresses attached to the Vidyamoyee Girls' School at Mymensingh.

The following works were completed during the year:—

Construction of one water closet with basin for the use of the teachers, and improvements to water supply at the Dow Hill Girls' School Kurseong; construction of new servants' quarters, *dhobikhana*, *dhobis'* tank and latrine attached to the Dow Hill Girl's School, Kurseong; addition of a boys' wing to the isolation hospital, Dow Hill Girl's School Kurseong; the remodelling of drains round servants' quarters, dining hall and play-shed of the Victoria Boys' School, Kurseong; construction of a Muhammadan hostel attached to the Zilla School at Rangpur; certain additions and alterations to the practising room attached to the Normal School at Rangpur; certain improvements to the newly-constructed Muhammadan Hostel attached to the Zilla School; Bogra; construction of a common room between the Hindu and Muhammadan hostels attached to the Zilla School at Malda; survey of the proposed site for the dormitory of the Dow Hill Girls' School, Kurseong; construction of a re-inforced concrete wall round the open reservoir at Victoria Boys' School, Kurseong; construction of drains under benches in the practical class rooms in, and outside exit drains for the Chemical Laboratory, Rajshahi College; certain improvements to the Zilla School buildings, Rangpur, construction of a separate room for housing the distilled water plant at the Rajshahi College, construction of a Muallim Training School at Pipalpathi (Hooghly); and construction of the Head Master's quarters attached to the *guru* training school at Munshiganj in the Dacca district.

Stones were collected for certain new works consisting of additions and alterations to the commercial class buildings, day latrine for boys, bathrooms and water closets for 50 boys, covered passage to bathroom, a new playground in connection with the preparatory school, sanitary fittings and cold water supply at the Victoria Boys' School, Kurseong. The actual construction work was postponed for want of funds.

Materials were collected for the following works:—

Construction of a new five-seated latrine in the Zilla School compound at Rangpur; and construction of a *guru* training school at Balurghat in the Dinajpur district.

In connection with the Dacca University the construction of the Jagannath Hall with two Hostels, the residence of the Superintendent of Hostels, the residence of the Provost, servants' quarters, roads, drains, tanks, etc., in the compound of the Hall were completed and made over to the University authorities. Provision of water connections to the two Hostels was in progress. The work of providing new electric lights and fans and making alterations in the existing circuits and in the position of the Dacca Electric Supply Company's main and meter board in the Old Ramna House at Dacca was completed.

Land was acquired for the extension of the Dacca Madrassah.

Additions and alterations to the Old Jagannath College at Dacca for converting it into an Intermediate College were completed.

Construction of the *guru* training School at Patuakhali in the Bakarganj district was nearly completed.

The improvements to the *guru* training School at Munshiganj in the Dacca District were in progress.

The following main contribution works in connection with the Dacca University were undertaken and completed during the year.

Additions and alterations to the Dacca College building to serve as the University Club; conversion of the Dacca College building into a Physical Laboratory and extension of the Dacca College workshop.

661. The Police Hospital at Bhowanipore, with a few of its outhouses, was completed and occupied. Work on the subsidiary buildings was in progress, but funds did not permit of a start being made on the residence. Police.

Sanitary improvements wre made in the latrines and urinals of the Police Hospital at Alipore.

Land was acquired at Radha Bazar for extension of the Central Police-station at Lal Bazar.

The construction of a new Police Hospital at Sibpur was nearly completed and the installing of electric fittings was in progress.

Land for the residence of the Assistant Superintendent of Police at Serampore was acquired.

The following works were in progress:—

Construction of certain buildings for the accommodation of ths Emergency Police Force at Asansol in the Burdwan district, construction of Police buildings at Khoksa in the Nadia district, construction of Police buildings at Kishoreganj in the aRngpur district; certain improvements to the Police Superintendent's quarters at Bogra; construction of family quarters for the Sub-Inspector, two head constables, etc., for the Police-station at Singra in the Rajshahi district; construction of Police buildings at Alipur Duars in the Jalpaiguri district; construction of certain Police buildings at Kurigram the Jalpaiguri ditsrict; certain improvements to the residence of the Superintendent of Police at Jalpaiguri and construction of Police buildings at Hijli; construction of Police buildings at Sibchar in the Faridpur district; dismantling the existing servants' quarters and kitchen attached to the residence of the Superintendent of Police at Khulna and reconstructing them on a new site; construction of Police buildings at .Abhoynagore in the Jessore district; construction of Police buildings at Mukshudpur in the

Faridpur district; construction of a new investigating centre in the Serajdikhan in the Dacca district; construction of a small investigating centre at Rupganj in the Dacca district; and extension of water pipe connections in the Peelkhana, Dacca.

The following works were completed during the year:—

Construction of Police buildings at Bethuadahari, Nabagram, Faracca, Hanshkhali, and Police Hospital at Krishnagar; construction of Sub-Inspector and head constables' quarters at Ramjibanpur in the Midnapore district; construction of Police buildings at Bholahat in the Malda district; sinking of a masonary well in the Police Lines at Malda; certain improvements to the Police Inspectors' quarters at Nilphamari in the Rangpur district; sinking of a masonary well in the compound of the Additional Superintendent of Police's quarters at Rangpur; certain improvements to the Police Lines at Jalpaiguri; construction of a small investigating centre at Raninagar in the Rajshahi district; raising of the compound of the Rowmari Police-station in the Rangpur district; reconstruction of some of the Police buildings in the Miltary Police Lines in the Peelkhana at Dacca; construction of a small investigating centre at Madhupur in the Mymensingh district; provision of electric lights and fans in the Military Police Lines at Peelkhana, Dacca; and construction of Police buildings at Sarail in the Tippera district.

Materials were collected for the Police buildings at Sadarpur and for new Police Lines at Khulna.

The following works were almost completed during the year:—

Constructing Police buildings at Fulbari in the Rangpur district; constructing a small Police investigating centre at Tapan in the Dinajpur district; constructing Police investigating centres at Pirganj and Balurghat in the Dinajpur district; and constructing a Police investigating centre at Gurudaspur in the Rajshahi district.

Public Works Buildings.

662. Iron bars were fixed to windows of the Public Works Subdivisional Godown at Darjeeling.

The following works were completed during the year:—

Construction of quarters for the Sub-Assistant Surgeon attached to the Public Works Department Dispensary at Tista Bridge; certain extension and improvements to the office of the Executive Engineer, Duars Road Division.

Construction of a shed for the steam road roller with quarters for driver and fireman at Jainti in the Jalpaiguri district was in progress.

Land was acquired for the Public Works Department brickfield at Serajganj in the Pabna district.

Settlement Buildings.

663. The following works were in progress:—

Construction of settlement buildings at Suri and construction of buildings at Serajganj for Pabna-Bogra settlement operations.

Miscellaneous.

664. Provision of an electric installation in the Government Research Tannery at Tengra was in progress.

Electric lights and fans and pumps were installed in the temporary Legislative Council Chamber at the Town Hall, Calcutta. Competitive designs for the construction of a new Legislative Council Chamber for the province of Bengal were received from architects in England and India and were examined by the Consulting Architect to the Government of Bengal. Construction of a Mining Lecture Hall, chowkidar's shed and a residence for the Indian assistants attached to the mining class is at Raniganj and Sitarampore, respectively, was in progress.

Electric lights and fans were installed in the office of the Director of Industry, Bengal, at No. 40A, Free School Street, Calcutta.

Several Provincial and Imperial Buildings, manly in the vicinity of Dalhousie Square, were decorated and illuminated by the Local Government on the occasion of His Royal Highness the Prince of Wales' visit to Calcutta.

Owing to the arrangement of Public Works Divisions, consequent on the separation of the Roads and Buildings Branch from the Irrigation Branch, a number of Public Works Department Buildings, roads and lands in the districts of 24-Parganas and Howrah was added to the Presidency Circle.

Construction of a dâk bungalow at Hijili, an inspection bungalow at Jhargram and provision of water supply and construction of the principal roads at Jhargram were completed.

Construction of principal roads, excavation of tanks and provision of water supply at Hijli were in progress.

665. Electric lights and fans were provided for the office of the Imperial Bank of India located in the Treasury Buildings, Calcutta. Contribution.

The work of installation of electric lights, fans and pumps in the Hospital for Tropical Diseases, Medical College, Calcutta, was completed.

Materials for the extension of the dormitory of the Loreto Convent, Darjeeling, were collected.

The additions and alterations to the nurses' duty room in the Eden Sanitarium Hospital, Darjeeling, were taken in hand and completed during the year.

Certain additional works in the *ganja* gola at Naogaon in the Rajshahi district were taken in hand and completed.

COMMUNICATIONS.

666. The widening and regarding of the cart road from Ghoom to Sukiapokri, which was begun last year, was completed during the year. Darjeeling.

667. In connection with the development of Kalimpong as a hill station, the construction of the lower bridle road was completed at a cost of Rs. 91,085, and progress was made with the construction of the principal cart road intended to serve the future station, and of the west rickshaw road. Kalimpong.

668. Steady progress was made during the year with the Duars Roads Improvement Scheme. An allotment of Rs. 4,44,000 was made for expenditure on the work, and the amount was fully spent. Work was confined to the following road projects:— Duars Jalpaiguri.

(*a*) Construction of Dalgaon Lankapara Road, Section II (7·16 miles).

(*b*) Improving and metalling Barnes Mainaguri Road (5·28 miles).

(*c*) Improving and metalling Latiguri Mainaguri Road (11·45 miles).

(*d*) Improving and metalling Mainaguri Dhupguri Road (12·19 miles).

Of these, the first and second are nearing completion, while work on the third is in an advanced stage.

In general, work was done up to the limit of the allotments given, and progress was substantial even though no particular line of road was finally completed during the year.

The details of works undertaken are as follows:—

Constructing Dalgaon Lankapara Road, Section II.—The construction of this section had been in abeyance owing to want of funds. It was taken up in the beginning of 1919-20 and continued during the year under review.

Metalling and improving Barnes Mainaguri Road.—This work was commenced in the year 1919-20 and continued. The road is nearly completed except for the construction of a few minor bridges in the first mile of the road.

Constructing a new metalled road from Latiguri to Mainaguri.—This work is estimated to cost Rs. 2,92,700. Fair progress was made.

Improving and metalling the Mainaguri Dhupguri Road including the construction of a major bridge over the Lower Jaldhaka.—The sanctioned estimate, amounting to Rs. 14,05,249 includes the following principal items, viz.:—

(*a*) Metalling and improving about 14 miles of the road;
(*b*) Construction of a major bridge over the lower Jaldhaka river which will consist of 11 spans of 120 feet each; and
(*c*) Construction of temporary quarters for the staff.

Fair progress was made, but the construction of the bridge has not yet been undertaken. The principal part of the steel work has been purchased, but has not yet been carried to the site of the bridge.

Widening part of the Chalsa Metalli Road passing through the Metalli Bazar.—This is a contribution work.

The survey of an alignment for a new road from Rajabhatkhawa to Alipur Duars was undertaken during the year.

Arboricultural operations on some of the roads in the Duars are in progress.

In regard to special repairs the old wooden bridges on the roads in the Duars which have been improved are gradually being replaced by permanent masonry and steel bridges. Up to the end of last year, 17 of these bridges varying in span from 80 feet to 10 feet, had been completely renewed. In the year under review 10 more were rebuilt and work was started on 8 bridges in addition to those completed. At this rate of progress, it is expected to eliminate all wooden bridges in the course of the next five years.

As regards maintenance, there are now 96 miles of completed metalled roads in the Duars, and during the year the ordinary repairs required to keep the roads in good order, were carried out. The magnitude of the repair work is gradually increasing as new miles of improved roads are finished and brought into use.

In 1915, there were 13·19 miles of metalled roads costing Rs. 19,813 to keep in order. In the present year, the number of miles has increased to 96, and the cost of repairs to Rs. 1,43,000.

Chittagong Hill Tracts. 669. The first section of the Rangamati-Mahalsery Road was almost completed.

Dinajpur. 670. The metalling of the first 8½ miles of the Hilli Balurghat Road was almost completed.

24-Parganas. 671. The erection of boundary pillars along the Akra Matiabruz Road had to be suspended owing to a dispute with the neighbouring inhabitants regarding the ownership of lands.

Calcutta Maidan Roads. 672. A tar macadam surface was laid on the Kidderpore Main Road, Casuarina Avenue, part of Hospital Road and on Lower Circular Road from Chowringhee to Cathedral Sortie.

ARBORICULTURE.

Calcutta. 673. The scheme for planting trees and improving the arboricultural condition of the Calcutta Maidan, prepared by the late Mr. Girard, received the administrative approval of the Government of Bengal at an estimated cost of Rs. 6,924. It has not been possible at present to provide funds for the work.

MISCELLANEOUS PUBLIC IMPROVEMENTS.

Calcutta. 674. On the occasion of the visit of His Royal Highness the Prince of Wales to Calcutta in December 1921, several Government buildings, mostly in the vicinity of Dalhousie Square, were decorated and illuminated. The Red Road and Casuarina Avenue on the Calcutta Maidan were also decorated, the work being carried out by Mr. Percy Brown, Principal, Government

School of Art, Calcutta, on behalf of the Department. The sum of about Rs. 2,10,000 was spent by the Department on decorations.

Owing to the rearrangement of Public Works Divisions consequent on the separation of the Irrigation Branch from the Roads and Buildings Branch, the charge of a number of public buildings, some roads, and lands in the districts of 24-Parganas and Howrah was added to the Presidency Circle.

675. The sanction of Government was accorded to a revised estimate, amounting to Rs. 7,40,668 of the cost of the Kalimpong Watersupply Scheme and further funds were allotted. **Kalimpong.**

676. The extension of the revetment of the Ganges bank at Sardah by a further 455 feet, which was started last year, was completed. The river flood was fairly high during the year 1921, but erosion of the bank was not heavy. A *char* formed in front of the College, and the main channel receded to some distance from the bank. During the last spate of the season the banks slipped away in front of the Principal's residence and an embayment started to form. The revetment was, therefore, extended down stream by 100 feet in order to prevent any extension of the damage. **Rajshahi.**

677. The revetment of the bank for the protection of the town of Pabna from erosion by the river Ganges (Padma), which was constructed during 1920-21, was repaired during the year. **Pabna.**

An extension of the revetment eastwards, to prevent further erosion and junction of the main river with the Ichamati Khal, was completed at a cost of about Rs. 94,965.

678. There was no heavy erosion of the river bank during the year, but the existing protective works were restored and repaired at a cost of Rs. 4,458. **Barisal.**

679. There was considerable erosion of the river bank during the year, and th triple Munsifi situated near the bank was in danger of being undermined. Protective measures were taken and a sum of Rs. 1,442, was spent during the year. **Madaripur.**

680. Erosion of the sea face of the main land along the front of the district and of the town of Noakhali continued to progress during the year. Though the rate of erosion has abated it is still apprehended that the Government buildings may be destroyed before the erosion entirely ceases. **Noakhali.**

Railways.

681. With the exception of the following light railways, which are in some respects subject to the control of the Government of Bengal, the more important lines of railways in the province are under the direct control of the Government of India, Railway Department (Railway Board):— **Administration.**

	Gauge.	Length in miles.
(1) Darjeeling Himalayan Railway	2'-0"	51·00
(2) Bengal Provincial Railway (Tarkeswar to Tribeni)	2'-6"	33·27
(3) Howrah-Amta Light Railway	2'-0"	43·87
(4) Howrah-Sheakhala Light Railway... ...	2'-0"	19·75
(5) Baraset-Basirhat Light Railway	2'-6"	52·24
(6) Jessore-Jhenidah Railway	2'-6"	36·75
Total ...		236·88

682. During the year under review no new lines of railway were opened to traffic in this Presidency, the mileage open on 31st March 1922 was the same as on 31st March 1921, viz., 3,269·92 miles.. **Mileage.**

683. No surveys for projected lines in Bengal were sanctioned during the year by the Government of India. **Surveys sanctioned.**

New construction.

684. Owing to the restricted funds available for railway development no new construction was sanctioned by the Government of India during the year, so far as Bengal was concerned.

Aerial Ropeways.

685. A Bill to regulate the construction and maintenance of aerial ropeways intended for public carriage in Bengal was taken into consideration by the Legislative Council and on the recommendation of a select committee, was sent back to Government for reconsideration.

Aerial Ropeway to Kalimpong.

686. Messrs. Gillanders Arbuthnot & Co. submitted a scheme for an aerial ropeway from the terminus of the Teesta Valley Branch of the Darjeeling-Himalayan Railway to Kalimpong, and invited the Government of Bengal to consider terms for the grant of a concession. In reply the firm were informed that the subject could not be considered until a decision had been come to in the matter of the Aerial Ropeways Bill.

Sainthia-Berhampur-Bhairamura Railway project.

687. Owing to paucity of funds the survey of this line was deferred under the orders of the Railway Board.

Ghoom-Simana Bustee Railway.

688. A reconnaissance report and estimates were drawn up by the Darjeeling-Himalayan Railway Company, but as the traffic prospects disclosed in the report did not justify the construction of the line, the Railway Board decided not to proceed further with the project.

Mymensingh-Sirajganj Railway.

689. Owing to the impracticability of establishing a workable steamer ghat on the left bank of the Jamuna river between Subarnakhali, 12 miles above Serajganj, and Boritoli 9½ miles below that place, the Railway Board decided not to proceed further with the project.

Dacca-Aricha Railway.

690. The report of the Committee appointed to consider the feasibility of constructing a railway in the tract of country lying between the Padma and Dhaleswari rivers, was received, and the Government of India (Railway Board) were asked to furnish this Government with their views on the advisability of constructing a railway on the alignment recommended by the Committee.

IRRIGATION DEPARTMENT.

Establishment.

Separation of the Roads and Buildings and the Irrigation Branches of the Public Works Department.

691. As the work of the Irrigation Department, which deals with matters relating to irrigation, flood disposal, regulation and training both of tidal and non-tidal rivers, anti-malarial and sanitary drainage and navigation in open and closed canals by boats and inland steamers, has greatly increased in extent and importance it was found necessary to revise the system under which the Roads and Buildings and the Irrigation Branches of the Public Works Department were working together and to place irrigation officers in a position to study the highly specialized and important hydraulic problems which are dealt with by that department, unhampered by other work. In view of the above considerations the Secretary of State for India sanctioned a proposal for the complete separation of the two branches of the Public Works Department which was accordingly carried into effect from 1st December 1921.

Canals (Irrigation and Navigation)—Embankment and Drainage Works.

Reconstitution of the Department.

692. From that date to the end of the financial year, the Irrigation Department worked independently of the Public Works (Road and Buildings) Department except that the navigation and other works within the jurisdiction of the Eastern and Northern Circles of the Public Works Department were carried on by those circles on payment of the usual

contribution. Since then the Irrigation Department has been reconstituted and divided into the following Circles of Superintendence, Divisions and Subdivisions.

SOUTH-WESTERN CIRCLE.

Divisions.	Subdivisions.
Cossye	Lachmapore. Panskura. Etamagra. Contai.
Nadia Rivers	Berhampore Jangipur. Krishnagar.
Damodar	Gadghat. Seijberia. Edilpore
Midnapore Revenue Division	Balichak. Antra. Panskura.

SOUTHERN CIRCLE.

Canals	Calcutta Canals. Magrahat. Diamond Harbour. Tolly's Nala.
Jessore Drainage	Arool Bhil. Uluberia. Nowi Sunthi. Headquarters.
Khulna	Madaripore. Khulna. River Training Works. Waterways.

Besides these, the Grand Trunk Canal Construction Division, which was formed for the execution of work in connection with the canal, was under the direct administrative control of the Chief Engineer, Irrigation Department, Bengal, from 1st April to 10th December 1921, and since then it has been placed under the Chief Engineer of the Canal. Navigation and other works, formerly in charge of the Eastern and Northern circles of the Public Works Department, have since come under the Southern and South-Western Circles respectively.

693. The transactions of the Department for the year 1921-22 are shown in the following statement so far as they relate to Irrigation and Navigation works:— **Capital and Revenue Accounts.**

CAPITAL ACCOUNT.

Heads.	Amount of construction estimate.	Expenditure during 1921-22.	Expenditure to end of 1921-22.	Balance for expenditure from 1st April 1922.
Works for which both Capital and Revenue Accounts are kept.	Rs.	Rs.	Rs.	Rs.
A.—Irrigation works—				
(1) Productive	.....	.....	.....	.....
(2) Unproductive—				
Direct	83,16,476	(-) 241	83,10,888	5,588
Indirect	1,85,165	(-) 6	1,85,325	(-) 160
Total ...	85,01,641	(-) 247	84,96,213	5,428

Heads.	Amount of construction estimate.	Expenditure during 1921-22.	Expenditure to end of 1921-23.	Balance for expenditure from 1st April 1922.
	Rs.	Rs.	Rs.	Rs.
B.—Navigation works—				
(1) Productive—				
Direct	3,03,74,000	35,52,639	53,85,809	2,49,88,191
Indirect	5,26,000	23,644	39,603	4,86,397
Total ...	3,09,00,000	35,76,283	54,25,412	2,54,74,588
(2) Unproductive—				
Direct	1,84,81,883	6,41,145	1,81,10,829	3,71,054
Indirect	3,33,626	17,437	3,08,534	25,092
Total ...	1,88,15,509	6,58,582*	1,84,19,363	3,96,146
Total works for which both Capital and Revenue Accounts are kept ...	5,82,17,150	42,34,618	3,23,40,988	2,58,76,162

* Exclusive of the expenditure of Rs. 43,73,257 during the year on the purchase of dredgers.

Revenue Account.

Heads.	Receipts.	Working Expenses.			Net Revenue.
		Direct.	Indirect.	Total.	
Works for which both Capital and Revenue Accounts are kept.	Rs.	Rs.	Rs.	Rs.	Rs.
A.—Irrigation works—					
Unproductive ...	2,32,836	1,84,930	13,594	1,98,524	34,312
B.—Navigation works—					
Unproductive ...	7,65,454	10,19,232	46,548	10,65,780	(–) 3,00,326
Total ...	9,98,290	12,04,162	60,142	12,64,304	(–) 2,66,014
Works for which only Revenue Accounts are kept ...	52,203	1,22,846	9,021	1,31,867	(–) 79,664
Works for which neither Capital nor Revenue Accounts are kept	31,337	36,138	.....	36,138	(–) 4,801
Total ...	10,81,830	13,63,146	69,163	14,32,309	(–) 3,50,479

694. The following statement shows the areas irrigated during the year as compared with the average of the triennial period ending March 1921:— Irrigation.

	Midnapore Canal.			Eden Canal.		
	Kharif (including hot weather).	*Rabi*.	Total.	*Kharif* (including hot weather).	*Rabi*.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Average of the triennial ending March 1921.	85,856	1,313	87,169	21,159	289	21,448
For 1921-22. ...	83,012	.. ...	83,012	21,961	133	22,144

695. The following statement shows the length of canals and distributaries which were in operation during the year 1921-22:— Length of Canals.

	Midnapore Canal.	Eden Canal.
	Miles.	Miles
Main canal irrigation	53·00	27·5
Branch canal	16·75	
Distributaries of above	254·54	17·6
Navigable channels	69·75	...

696. The following statement shows the traffic on the navigable canals during the year 1921-22 as compared with the average of the triennium ending March 1921:— Navigation.

	Midnapore Canal.		Hijili Tidal Canal.		Calcutta and Eastern Canal.		Madaripur Bhil Route.		Orissa Coast Canal.		Nadia Rivers.	
	Average of the triennium ending March 1921.	For the year 1921-22.	Average of the triennium ending March 1921.	For the year 1921-22.	Average of the triennium ending March 1921.	For the year 1921-22.	Average of the triennium ending March 1921.	For the year 1921-22.	Average of the triennium ending March 1921.	For the year 1921-22.	Average of the triennium ending March 1921.	For the year 1921-22.
Length of canals open ... Miles	69¾	69¾	49¾	49¾	1,184	1,184	38	38	54½	54½	48½	48½
Receipts ... Rs.	44,046	40,704	68,530	64,746	3,90,659	4,12,922	3,31,346	2,84,792	13,809	12,454	15,560	12,634
Tonnage of boats by canal measurements ... Tons	4,34,190	493,255	263,012	239,482	1,194,058	1,071,230	958,983	814,310	113,981	112,539	78,648	59,520
Estimated weight of cargo ... ,,	68,959	50,232	83,004	70,749	733,577	720,524	1,439,804	1,285,184	38,796	33,747	55,698	43,393
Estimated value of goods ... Rs.	85,07,959	69,06,706	89,67,142	97,99,900	8,85,22,409	6,18,10,380	29,25,16,510	15,81,77,610	34,72,989	40,51,240	1,23,03,975	1,10,57,713
Estimated value of rafts ... ,,	18,933	9,240	9,247	5,680	1,00,055	2,13,910	5,083	8,833	42,043	58,084	75,271	3,37,706

In accordance with the instructions of the Government of India the discharges of certain rivers as shown below were recorded during the year:—

SOUTH-WESTERN CIRCLE.

River Damodar.

Date.	Discharges in cusecs at—			
	Jujuti.	Hapushpur.	Salalpur.	Jamalpur.
15th April 1921 ...	85	19	...	73
30th „ „ ...	100	10	...	62
15th May „ ...	...	...	...	35
30th „ „ ...	...	...	...	46
31st „ „ ...	...	64	...	...
12th June „ ...	...	...	...	38
15th „ „ ...	...	...	38	...
30th „ „ ...	12,852	...	15,028	12,964
15th July „ ...	...	...	19,246	15,240
16th „ „ ...	9,244	...	...	...
31st „ „ ...	49,798	26,922	...	26,320
15th August 1921 ...	8,407	...	9,429	10,018
30th „ „ ...	103,822	...	60,954	49,219
15th September 1921 ...	...	...	...	55,533
16th „ „ ...	62,915	...	43,746	...
30th „ „ ...	4,959	...	3,708	3,693
7th October „ ...	9,284	...	8,116	8,164
14th „ „ ...	..	...	...	2,528
15th „ „ ...	2,036	...	2,028	...
22nd „ „ ...	1,904	...	1,191	...
23rd „ „ ...	...	...	...	1,171
29th „ „ ...	...	...	...	885
31st „ „ ...	1.406	...	882	...
15th November „ ...	932	...	986	779
30th „ „ ...	831	...	595	559
15th December „ ...	543	...	493	436
30th „ „ ...	...	...	...	277
31st „ „ ...	460	...	375	...
15th January 1922 ...	402	...	357	256
30th „ „ ...	...	...	...	207
31st „ „ ...	319	...	197	...
15th February „ ...	347	...	...	...
16th „ „ ...	...	...	270	...
17th „ „ ...	...	...	...	178
28th „ „ ...	196	...	219	106
15th March „ ...	149	...	26	...
17th „ „ ...	...	...	...	27
31st „ „ ...	130	...	14	17

Rivers in the Birbhum district.

Names of rivers.	September 1921.					October 1921.				
	Maximum discharge.		Minimum discharge.		Average discharge.	Maximum discharge.		Minimum discharge.		Average discharge.
	Date.	Quantity in cusecs.	Date.	Quantity in cusecs.	Quantity in cusecs.	Date.	Quantity in cusecs.	Date.	Quantity in cusecs.	Quantity in cusecs.
More	12th	32,611·3	30th	593·7	2,693·3	4th	3,596·6	21st	260·3	653
Brahmani	12th	17,783·3	27th	104·7	1,312·3	4th	353	31st	11	47
Bansloe	13th	28,800·7	29th	255·3	1,423	14th	512	31st	50·3	127·3

697. During the year under review, the classification of works has undergone a complete change under the orders of the Government of India, and is now as follows:— Classification of works.

Account—" *C. C. 55.—Construction of Irrigation, Navigation, Embankment and Drainage works not charged to Revenue.*"—The works in this class are (1) the Midnapore Canal, (2) Hijili Tidal Canal, (3) the Grand Trunk Canal, (4) the Calcutta and Eastern Canals, and (5) the Madaripur Bhil Route.

The Midnapore Canal provides both for irrigation and navigation and the other four are for navigation only. No revenue account has yet been opened for the Grand Trunk Canal. The revenue account of the other four canals is dealt with under " working expenses—under the Irrigation Receipt head of account XIII."

Account —" *16—Construction of Irrigation, Navigation, Embankment and Drainage Works charged to Revenue.*—This is a transfer head of account and only shows in lump the portion of the expenditure under Account 55 which is charged to revenue.

Account " *15—Other Revenue expenditure financed from ordinary revenues* ".—(*i*) Works for which only revenue accounts are kept are the Nadia Rivers, the Gaighatta and Buxi Khal, and a part of the Orissa Coast Canal. The Magrahat Drainage scheme in the 24-Parganas district, which was carried out under the provisions of the Bengal Sanitary Drainage Act, is also included under this head. All these works have, however, been relegated to the class " Works for which neither Capital nor Revenue accounts are kept " with effect from the financial year 1922-23, (*ii*) the works for which neither Capital nor Revenue accounts are kept are—(*a*) the Eden Canal, which is used partly for irrigation, partly to afford a supply of drinking water and partly for sanitation purposes, (*b*) training works carried out for the conservancy of the rivers Ganges, Bhagirathi, Dhaleswari and Buriganga.

Embankment and Drainage Works.

698. The expenditure on embankments including charges for establishment, tools and plant was Rs. 9,03,430 and that on drainage works Rs. 4,79,282. Expenditure.

699. The total length of embankments of all classes maintained by Government during the year was 1,343 miles 4,376 feet as compared with 1,388 miles and 1,459 feet in the preceding year. Length of Embankments.

700. A special survey was made during the year to ascertain the crest of the whole of the Chetua Circuit Embankment from 0 to 18 mile for the preparation of a detailed estimate. Surveys and Investigations.

The survey of the Saraswati khal from Gopalnagar to Tribeni was taken in hand.

Following on the completion of survey operations in the Dunia and Barunda basins, the necessary borings were made during the year near Norghat, Terapakhia and Mosagram for testing the subsoil, etc., for the proposed locks and sluices.

The survey operations in connection with the drainage scheme for the Moyna and Sabong parganas were completed during the year.

The Laltakuri abandoned embankment was re-surveyed to verify the position of the original mileposts and boundary pillars.

Survey operations in connection with the Burronal Beel and Bhairab scheme were in progress and those in connection with the Harihar Mukheswar, Kodla Betna, and Jhenidah projects were completed. Gauge readings in connection with the Bhaitgachegong project were recorded during the year.

Works undertaken under the provisions of—

(a) the Bengal Drainage Act, VI of 1880.

701. The Dankuni, Howrah, Rajapur and Barijolla Drainage Works were efficiently maintained at a cost of Rs. 17,052 as against Rs. 15,771 spent during the previous year, and against the average of Rs. 11,300 which has been fixed for their maintenance. Maintenance and repairs to the drainage of the Berhampore Town and Bistupur Bhil cost Rs. 3,116. An expenditure of Rs. 1,079 was incurred on the maintenance of Gobra Nala and removal of obstructions therein, against Rs. 1,442 in the previous year.

(b) The Bengal Sanitary Drainage Act, VII of 1895 (and Bengal Agricultural and Sanitary Improvement Act VI of 1920).

702. The Arul Bhil, Nowi Sunthi, Jaboona (Section II) and Amta Drainage projects, which were started under the Bengal Sanitary Drainage Act, VIII of 1895, have been proceeded with under the new Bengal Agricultural and Sanitary Improvement Act, VI of 1920, and were in progress during the year. These schemes have been separately reviewed under the head "Anti-malarial Schemes." The Magrahat Drainage Scheme, carried out under the Sanitary Drainage Act, was efficiently maintained during the year.

(c) Bengal Embankment Act, II of 1882.

703. The Churrial drainage works were maintained in good condition during the year at a cost of Rs. 1,792 against Rs. 2,002 in the previous year.

The sluices in Schedule D Embankment were also efficiently maintained and the cost borne by the estates benefited.

The transactions of the year for each of the above works are briefly described in the following summary which is divided for convenience into circles of superintendence.

SOUTH-WESTERN CIRCLE.

Major Irrigation Works (Unproductive).

Midnapore Canal.

Capital Outlay.

704. No capital expenditure was incurred on this work during the year. The total capital outlay (direct charges) up to the end of the year was Rs. 83,10,888.

Rainfall.

705. The rainfall at Midnapore was 53·49 inches as compared with 60·69 inches in the previous year.

Irrigation.

706. The area irrigated from the canal was 83,012 acres against 91,066 during the year 1920-21.

The cash realisation on account of water rates during the year was Rs. 1,64,374 against a total demand of Rs. 1,68,651 including the arrears of the previous year. The amount remitted during the year was Rs. 310 only as compared with Rs. 1,225 in the preceding year. The balance unrealised at the end of the year was Rs. 3,967 as against Rs. 3,828 at the end of the previous year. The collection of water rates was, however, satisfactory, the percentage of realisation being 97·5 per cent. as compared with 98·04 per cent. in the previous year.

Navigation.

707. The navigation receipts during the year were Rs. 40,704 as compared with Rs. 40,370 during the year 1920-21.

Financial Results.

708. The gross revenue and working expenses (direct and indirect) of the Midnapore Canal during the year amounted to Rs. 2,32,836 and Rs. 1,98,524, respectively, as against Rs. 2,36,136 and Rs. 2,40,712 in the preceding year. The balance of net revenue for the year was Rs. 34,312.

The expenditure during the year on extensions and improvements was Rs. 844 as compared with Rs. 470 in the previous year. The principal item was the survey of the river Cossye near the Midnapore Anicut which cost Rs. 473.

The expenditure under the head "Repairs" was Rs. 89,503 against Rs. 1,35,313 in the previous year, the principal item of expenditure being the rebuilding of the lower wing wall of the north abutment of the Midnapore Anicut which cost Rs. 32,705.

Brief details are given below:—

	Rs.
Head works	... 46,819
Main canal and branches	... 33,250
Distributaries.	... 8,835
Drainage and protective works	... 599

MINOR IRRIGATION WORKS.

Eden Canal.

Eden Canals.

709. The area irrigated from this canal was 22,144 acres as compared with 23,008 and 20,799 acres in the two preceding years. The gross revenue derived during the year was Rs. 31,337. The expenditure on working expenses amounted to Rs. 36,138 as detailed below:—

	Rs.
Maintenance and repairs	... 17,240
Establishment	... 18,081
Tools and plant	... 817
Total	... 36,138

as compared with Rs. 44,278 in the preceding year. The decrease is chiefly due to reduced expenditure on the construction of the sand dam at Jujuti.

MAJOR NAVIGATION WORKS (UNPRODUCTIVE).

Hijili Tidal Canal.

Hijili Tidal Canal.

710. There was no outlay chargeable to the Capital accounts of the canal during the year. The total capital outlay (direct charges) to the end of the year amounted to Rs. 25,50,805. The gross revenue and working expenses (direct and indirect) amounted to Rs. 67,507 and Rs. 20,370, respectively, as against Rs. 63,624 and Rs. 28,579 in 1920-21.

The net balance of revenue for the year was Rs. 47,137 as against Rs. 35,045 in the preceding year.

MINOR NAVIGATION WORKS.

Orissa Coast Canal.

Orissa Coast Canal.

711. This canal lies partly in the Bengal Presidency (54·5 miles) and partly in the province of Bihar and Orissa, each Government dealing with the lengths lying within their territorial limits. The receipts and working expenses (direct and indirect) of the portion in Bengal for the year were Rs. 14,786 and Rs. 10,257 respectively as against Rs. 13,236 and Rs. 7,691 in the previous year.

Gaighatta and Buxi Khal.

Gaighatta and Buxi Khal.

712. The collection of tolls on boat traffic in this khal was leased for three years from the 15th May 1919 at a rental of Rs. 4,700 per annum. The rent realised from the lessee was, however, only Rs. 1,900. The working expenses (direct charges) during the year amounted to Rs. 2,189.

Nadia Rivers.

Nadia Rivers.

713. The approximate length of the channels comprised in the Nadia Rivers was 480½ miles during the year as compared with 488½ miles in previous years. The reduction of 8 miles is in the length of the Faracca channel the entrance to which is now at Dhulian.

These are as detailed below :—

	Miles.
(1) Faracca channel from Dhulian on the Ganges to Biswanathpur ...	17
(2) The Bhagirathi river from the Bhagirathi entrance at Biswanathpur to Nadia	132
(3) Bhairab Jalangi from entrance to Nadia	163½
(4) Matabhanga from entrance to junction with Hooghly	136
(5) Hooghly from Nadia to Matabhanga junction	32
Total ...	480½

In addition to the above, a length of 10 miles of the Gorai river from its offtake from the Ganges down to Kushtia and the river Ganges from Rajmahal to Goalundo, a length of 152 miles, are comprised within the charge of Nadia Rivers Division, although they are not in the Nadia rivers system.

The receipts and working expenses (direct and indirect) of the Nadia rivers system, during the year were Rs. 13,072 and Rs. 85,183, respectively, as against Rs. 13,377 and Rs. 72,525 in the preceding year. As this system of rivers is being maintained at a loss the question of opening it up to free navigation is under consideration. A brief description of the rivers comprised in the system is given below :—

Bhagirathi river.

714. This river is 149 miles in length from the Dhulian entrance to Nadia, the portion below Nadia to its junction with the Matabhanga being known as the Hooghly. The first 17 miles from the Dhulian entrance to the Biswanathpur entrance is a spill channel of the Ganges called the Faracca channel, the original entrance being at Faracca. The next reach of 68 miles from Biswanathpur entrance to Dadpur is known as the Upper Bhagirathi and the remaining reach of 64 miles down to Nadia is known as the Lower Bhagirathi. The Lower Bhagirathi is again divided into (*a*) the upper reach from Dadpur to Katwa, and (*b*) the lower reach from Katwa to Nadia.

The Bhagirathi is not now used for navigation by steamers with regular service. On the Upper Bhagirathi, ordinary boat traffic was maintained up to Jangipur almost throughout the year and through traffic up to the end of December 1921. On the Lower Bhagirathi boat traffic was maintained throughout the year from Katwa to Nadia and thence to the junction with the Matabhanga. The steamer services of the Calcutta Steam Navigation Company between Calcutta and Nadia were maintained throughout the year. Five shoals with an aggregate length of 8,000 feet were trained during the year as against 5 shoals and 7,500 feet in the previous year.

The minimum depth of water at the end of March in 1920, 1921 and 1922 was:—

Reach of river.	Least depth of sounding.						Width of channel.
	1920.		1921.		1922.		
	Ft.	in.	Ft.	in.	Ft.	in.	
Entrance from Ganges	Dry		dry		0	6	Over 25 feet.
Thence to Geria	,,		0	2	2	0	
Geria to Jangipur	,,		dry		0	6	
Jangipur to Berhampur ...	1	6	0	3	0	9	
Berhampur to Katwa	1	0	1	0	1	0	
Katwa to Nadia	1	0	1	0	1	0	

Bhairab-Jalangi river.

715. The Bhairab-Jalangi river has its off take from the Ganges about 2 miles from the present Lalgola Ghat Railway Station and joins the Bhagirathi at Nadia. It is divided into two parts:—

	Miles.
(*a*) Bhairab river from entrance to Muktearpur	60
(*b*) Jalangi river from Muktearpur to Nadia	103½

There was no steamer service in the river during the year. Boat traffic was maintained from July to October 1921. Twenty-one shoals measuring 39,500 feet were trained against 22 shoals with 39,000 feet in the previous year.

716. The Matabhanga river takes off from the river Ganges at a place about 5 miles above the village Jalangi and falls into the river Hooghly at Chakdah. It is divided into two portions. The first portion from the entrance to Munshiganj which is 53 miles long is called the Upper Matabhanga and that from Munshiganj down to the Hooghly junction which is 85 miles is called the Lower Matabhanga. In the Upper Matabhanga 26 shoals measuring 25,000 running feet, against 16 shoals with 22,800 feet in the previous year were formed of which only 6 shoals measuring 8,500 feet were trained against 7 shoals with 8,600 feet in the preceding year. No steamer plied during the year, but boat traffic was maintained from July to October 1921. During the dry season only small boats could ply from Shikarpur downwards. In the Lower Matabhanga 47 shoals formed as in the previous year out of which only 3 shoals at Hanskhali and Chapra necessitated bandalling work. The length worked was 1,600 feet against 1,500 feet in the previous year. **Matabhanga river.**

There was no regular steamer service in this portion of the river but a regular country-boat service was maintained throughout the year.

717. Training works in connection with the conservancy of the river Ganges lying between Rajmahal and Goalundo were carried out during the year through the agency of the India General Navigation and Railway Company, Limited, under Government supervision; 8 shoals with a total length of about 39,050 feet were trained by bandalling operations as against 12 shoals in the previous year. The object of the bandalling work is to maintain a navigable channel with a 6 feet depth of water. The cost of the season's operations to Government was Rs. 12,474 against Rs. 14,081 of the previous year. **Ganges river between Rajmahal and Goalundo.**

718. No dredging work was done in this year either for want of funds as well as of a suitable dredger, and attempts were made to improve the entrance by means of bandalling. The total expenditure incurred was Rs. 2,828 against Rs. 4,229 in the previous year. **Entrance to the Bhagirathi river from the Ganges.**

719. During the year discharge observations were taken of the Bhagirathi, Bhairab Jalanji and the Mathabhanga rivers at a cost of Rs. 11,688 for works only, against Rs. 12,941 in the previous year. The object of these observations is to determine the amount of percolation of water pouring into these rivers both during the rains and the dry season along with the natural flow so that the feasibility of any scheme might be considered with a view to any sanitary improvement of the outlying country. **Discharge observations.**

720. The report of the Committee appointed in February 1917 to advise Government on the steps to be taken to carry out systematic observations of the changes in the Nadia Rivers, and also, if possible, to improve their condition as navigable channels and as feeders for the Lower Hooghly, is still under the consideration of Government. The only outcome of the report so far has been the constitution of a permanent Board with the Chief Engineer, Irrigation Department, as President whose duty it will be to examine all important projects concerning either drainage, irrigation, sanitation or transport (by railroad or waterways) which are likely to restrict the free flow of flood water. **Upper Hooghly and its feeder rivers.**

721. The Gorai takes off from the Ganges about 12 miles below the Hardinge Bridge at Sara. **The Gorai river.**

The entrance is not stable but of a shifting character. In the year 1912, the entrance channel changed to its present position and for some years gradually improved with the result that a much larger volume of water entered and passed down to the lower reaches where the river is called the Madhumati. Since the year 1916-17 considerable changes have taken place and a new channel called the Kalorkole channel has opened out. The bed of Kalorkole channel has risen since 1919, and the channel is silting up. But the right bank of the Ganges is being eroded to a considerable extent and in course of a few years more, the Kalorkole channel may disappear and the main Ganges may flow through it. A survey of the Gorai entrance after the flood season of 1921-22 was made as usual and the expenditure incurred was Rs. 350 against Rs. 303 in the preceding year.

The Ganges river at Rampur-Boalia.

722. Training works were carried out in the channel of the river Ganges at Rampur-Boalia by means of bandalling operations in order to improve navigation and sanitary conditions and to maintain the water supply of the town. The works were started on the 6th November 1921 and closed by the 15th May 1922. The channel was maintained in an excellent condition throughout the year and there was no stoppage of steamer traffic even for a single day. Some big Ganges steamers with two or three flats in tow plied regularly in these channels throughout the year. The expenditure of the entire season was Rs. 4,986 for works only towards which the steamer companies, the District Board of Rajshahi and the Rampur-Boalia Municipality contributed Rs. 3,500. The expenditure incurred up to March 1922 (final) was Rs. 4,308.

Anti-malarial works.

723. The anti-malarial works in charge of the Irrigation Department are in reality sanitary drainage schemes undertaken for the purpose of regulating the surface level of fresh water on the land with the object of serving the double purpose of securing the crops and submerging the land to destroy the breeding grounds of the anopheles mosquito. The Banka anti-malarial project, which had been completed in 1919-20, was in operation during the year. Part I of the Saraswati project, which was carried out at Government cost, was finished during the year. Part II of the project was being surveyed. The Amta project, which is being carried out under the Agricultural and Sanitary Improvement Act, 1920, with a Government contribution, was in progress during the year. The Peechaboni and Amirabad projects, which are being done at Government cost, were also in progress.

Surveys and Investigation.

Surveys and investigations.

724. (1) *Saraswati project II.*—The survey was nearly completed and was examined with a view to evolve a flushing project.

(2) *Rankini Doho and Ghea survey.*—The project was under preparation and a resurvey of the levels was in progress.

(3) *Dhunia, Midnapore district.*—Surveys were completed during the year. Examination of the subsoil at the site of the proposed sluice was carried out.

(4) *Sabong and Pursua, Midnapore district.*—Survey work was in progress.

River floods.

725. There was only one moderate flood in the Cossye river causing a breach in the 17th mile of embankment No. 16 in Hoodah No. 14 which was repaired promptly, and practically no damage to the crops ensued. The flood in the Kalighye river also, although rather high, caused no damage, In the river Damodar, there were altogether eight floods, the highest of which occurred on the 29th July 1921. Flood precautionary measures were strictly enforced and due arrangements were made for the protection of the banks. The flood occurred at the time of transplantation which had been delayed for want of rain and was therefore welcomed by the villagers. The subsequent floods also fostered the growth of the paddy crop instead of doing any harm. There was no flood in the Ajai river excepting a freshet which occurred on the 28th July 1921. Moderate floods also occurred in the Selye, Darkessur and Rupnarain rivers, but were of no importance. The flood in the Bhagirathi was higher than that of 1920 by 3·70 feet but lower than all the previous floods from 1912 to 1919. The main course of the river remained practically unchanged.

SOUTHERN CIRCLE.

Minor Navigation Works.

Calcutta and Eastern Canals.

Capital account.

726. A sum of Rs. 92,132 (direct charges) debitable to the capital account of the canals was expended during the year inclusive of a credit of Rs. 88,905 on account of the hire of the dredgers *Foyers* and *Alexandra.*

The principal items of expenditure were :—

(*a*) Excavating by hand a cut between Kakrabunia khal and the Channel Creek to the south of the Doagra Channel along the steamer route. The outlay of the year was Rs. 1,959 and the work was practically completed.

(*b*) Remeasuring Government land along Tolly's Nala preparatory to demarcating it by means of boundary pillars. An expenditure of Rs. 770 was incurred.

727. The receipts from navigation tolls amounted to Rs. 3,87,457 as compared with Rs. 3,65,011 in the preceding year. The gross receipts and working expenses (direct and indirect) amounted to Rs. 4,12,748 and Rs. 9,36,449, respectively, against Rs. 3,93,449 and Rs. 7,93,822 in 1920-21. Navigation receipts.

The result shows a deficit of Rs. 5,23,701 against a deficit of Rs. 4,00,373 in the preceding year.

The more important items on which expenditure was incurred during the year are briefly noted below :—

Extensions and improvements—

	Rs.
(1) Reconstruction of the Kidderpore Bridge	2,77,783
(2) Partial canalisation of Tolly's Nala by constructing a sluice at Samukpotta	7,662

Maintenance and Repairs—

(1) Repairs to and renewal of cross girders of the Hastings Bridge ...	3,288
(2) Changing worn-out iron works and other repairs to the Ultadanga Bridge	12,857
(3) Changing of trough plates and other repairs to the Narcooldanga Bridge	4,500
(4) Upkeep of marks and buoys in the Sunderbans steamer route ...	26,698
(5) Maintenance of the Eastern Canals from Assassuni to Barisal ...	15,343
(6) Working dredgers and launches	32,610
(7) Recording tidal gauges in the Gangetic delta	5,822
(8) Repairs to dredgers *Foyers* and *Alexandra* (including the credit on account of the hire of the dredgers)	87,438

Madaripur Bhil Route.

728. The expenditure (direct charges) debitable to the capital account was Rs. 7,33,277 of which Rs. 6,15,605 represents the outlay on works. This sum was chiefly spent on widening and deepening the Madaripur Bhil Route between Haridaspur and Futteypur, a length of 20 miles, to a bed width of 275 feet. The work was started in the year 1919-20 and was in progress during the year. The expenditure incurred was Rs. 6,04,143. The dredgers *Foyers* and *Alexandra* were employed on the work for a period of 336 and162 days, respectively, and 47,644,156 c.ft. and 11,147,908 c.ft., respectively, of earth were dredged at a total cost of Rs. 2,90,260 working out to a rate of Rs. 4·95 per 1,000 c.ft., exclusive of the cost of land and bunds. Capital Account.

The total capital outlay (direct charges) to the end of 1921-22 amounted to Rs. 60,24,008 against the estimate of Rs. 61,19,668 sanctioned by the Secretary of State. The completion report of the original project received the approval of the Secretary of State in June 1919. The construction estimate has been closed with effect from the 31st March 1917, and the remaining works are being carried out under the rules governing expenditure chargeable to open capital account.

729. The receipts and working expenses (direct and indirect) during the year were, respectively, Rs. 2,85,199 and Rs. 1,08,961, against Financial Results.

Rs. 3,16,898 and Rs. 1,34,939 in the year 1920-21. The decrease in receipts is attributable to the following causes:—depression in trade due to heavy import duties and high prices of materials after the war; reduced production of jute by the tenants on account of the poor prices obtained in the previous year; failure of the rice crops in the Sunderbans and scanty harvest of other crops; the coal crisis and the partial strike of the employees of the steamer companies; and the exchange crisis resulting in diminished imports of foreign goods.

The following works of importance were carried out under the head "Maintenance and Repairs" during the year—

	Rs
(1) Dredging the spit of the Lower Kumar at Charmaguria ...	32,208
(2) Dredging the spit of the Lower Kumar at Takerhat	11,557
(3) Deepening and resectioning the Khalia khal	2,854
(4) Protecting by stone dumping the countryside apron of sluice in the Madaripur Bhil route	26,718
(5) Cyclone damage repairs to locks sluices, escapes, etc	49,217

Conservancy of the Dhaleswari and Buriganga rivers (Dacca).

730. The works carried out during the year consisted of :—

(1) Bandalling operations in the river Dhaleswari and Buriganga and maintenance of spur works in the Buriganga.

(2) Maintenance of gauges, etc.

The annual bandalling operations were carried out and an expenditure of Rs. 23,120 was incurred up to March 1922 for works only. Twenty-three shoals were trained, *viz.*, 16 in the Dhaleswari and 7 in the Buriganga. The operations were very satisfactory in the Dhaleswari river, but were not so satisfactory in the Buriganga, as the enlargement of the cut at Jagannathpur adversely affected the flow of the river. No dredging was done during the year at the Postgolla shoal. The Ati spurs, which have worked satisfactorily in improving the Ati khal through which the main stream is now flowing, were maintained at a cost of Rs. 3,982. Several gauges were maintained during the year at a cost of Rs. 2,623.

Jute boats of maximum draft of 4 to 5 feet were navigated easily throughout the season in the river Dhaleswari. In the river Buriganga navigation after December was impossible even small country-boats called *ghashi* boats could not pass over the shoals, but boats after passing through the entrance could easily go through the new cut where water was deep.

Improvement of the Bidyadhari river.

731. Work in connection with the improvement of the river Bidyadhari by creating a spill reservoir for the reception of water during flood tides was still in progress during the year. A total expenditure of Rs. 10,87 was incurred and the revenues realised from the project during the year on account of rent of fisheries, land, etc., was Rs. 13,579.

Anti-malarial works.

732. The *Bheragachi Hadanpur* project was practically completed. The two vented sluice in connection with the project did good service and its efficiency was severely tested in the flood season. The *Monikhali* project was also completed save for the erection of some boundary pillars. The scheme is working very satisfactorily as it effectively drains a water-logged area of about 16 square miles. The *Arapanch* drainage scheme was under construction and fair progress was made on it during the year. The *Nowi-Sunthi*, *Arool Bhil* and *Jaboona* projects which are being carried out under the Agricultural and Sanitary Improvement Act, 1920, were also in progress during the year.

Surveys and Investigations.

Tidal survey of the lower delta.

733. (1) *Baitagachi Gong—24-Parganas.*—Gauge readings in connection with the project recorded during the year.

(2) *Harihar Mukteswari, Jessore.*—The investigations having been completed, the design of the project was taken up.

(3) *Bhairab, Jessore.*—Estimates for Part I of the project were in preparation. The survey of Part II was completed and sections were plotted.

(4) *Jhenidah, Jessore.*—The survey was in progress.

(5) *Kodla Betna, Jessore.*—The survey investigations, gauge readings, and boring operations were completed in the course of the year and the scheme reached the design stage.

(6) *Selimpur Burronel Bheel, Jessore.*—The survey and investigations were taken up during the year.

734. There were no high floods in any of the rivers in this Circle during the year. River floods.

Grand Trunk Canal Division.

735. The project for the Grand Trunk Canal is classed as a productive navigation work and was sanctioned by the Secretary of State at an estimated cost of Rs. 3,09,00,000. The principal purpose aimed at in the project is to give a more direct route between the Hooghly at Calcutta and the rivers in East Bengal. The excavation will be made by dredgers and for this purpose the dredger *Ronaldshay* was constructed in England. It has since reached Calcutta. Grand Trunk Canal Project.

All works in connection with the project except those for which Government have committed themselves have since been held in abeyance pending further examination of the productive aspect of the project. A revised estimate with certain changes in alignment has since been received and the estimated cost has been reduced by about Rs. 30 lakhs.

Total expenditure on the project during tne year chargeable to "55.—Construction of Irrigation, Navigation, Embankment and Drainage Works not charged to Revenue" was Rs. 35,88,493 as detailed below.

	Rs.
(*a*) Land, works and tools and plant including land acquisition establishment	4,23,614
(*b*) Dredger *Ronaldshay*	30,57,508
(*c*) Establishment charges	1,07,371
Total ...	35,88,493

CHAPTER V.—REVENUE AND FINANCE.

A.—Gross Revenue.

Gross revenue.

736. The following statement shows the gross revenue (*i.e.*, the total of Central and Provincial Revenues) for 1921-22 as compared with that of 1920-21.

[The figures are in thousands of rupees.]

Receipts.	1920-21.			1921-22.		
	Central.	Provincial.	Total.	Central.	Provincial.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Principal heads of Revenue—						
I.—Customs ...	11,79,53	...	11,79,53	14,26,72	...	14,26,72
II.—Taxes on Income ...	8,09,57	...	8,09,57	6,62,76	...	6,62,76
III.—Salt ...	1,38,95	...	1,38,95	1,55,77	...	1,55,77
IV.—Opium ...	2,98,88	...	2,98,88	2,39,00	...	2,39,00
V.—Land Revenue ...	...	3,04,47	3,04,47	...	3,01,97	3,01,97
VI.—Excise ...	...	1,96,36	1,96,36	...	1,82,76	1,82,76
VII.—Stamps ...	...	2,79,30	2,79,30	...	2,73,84	2,73,84
VIII.—Forests ...	...	21,83	21,83	...	19,24	19,24
IX.—Registration ...	...	26,81	26,81	...	25,48	25,48
X.—Tributes from Indian States ...	68	...	68	68	...	68
XII.—Subsidized Companies ...	...	1,04	1,04	...	1,68	1,68
XIII.—Irrigation, Navigation, Embankment and Drainage Works for which capital accounts are kept ...	...	-1,44	-1,44	...	-2,06	-2,06
XIV.—Irrigation Navigation Embankments and Drainage-Works for which no capital accounts are kept ...	...	1,88	1,88	...	1,87	1,87
XVI.—Interest ...	12,48	4,90	17,38	12,22	4,23	16,45
XVII—Administration of Justice ...	...	14,29	14,29	...	11,62	11,62
XVIII.—Jails and Convict Settlements ...	...	15,06	15,06	...	14,72	14,72
XIX.—Police ...	...	3,62	3,62	...	3,65	3,65
XX.—Ports and Pilotage ...	16,09	13	16,22	13,72	22	13,94
XXI.—Education ...	...	11,10	11,10	...	10,65	10,65
XXII.—Medical ...	...	4,98	4,98	...	5,45	5,45
XXIII.—Public Health ...	...	15	15	...	10	10
XXIV.—Agriculture ...	...	1,85	1,85	...	2,29	2,29
XXV.—Industries ...	...	8,01	8,01	...	15,50	15,50
XXVI.—Miscellaneous Departments ...	209	2	2,11	1,09	5	1,14
XXVII.—Currency ...	19	...	19	13	...	13
XXIX.—Exchange ...	...	...	...	...	...	...
XXX.—Civil Works ...	1,25	6,64	7,80	1,49	6,96	8,45
XXXII.—Transfers from Famine Insurance Funds ...	...	...	...	...	...	...
XXXIII.—Receipts in aid of Superannuation ...	1,78	42	2,20	2,09	2,11	4,20
XXXIV.—Stationery and Printing ...	...	2,06	2,06	...	1,91	1,91
XXXV.—Miscellaneous ...	10,25	5,20	15,45	15,49	2,33	17,82
Total ...	24,71,74	9,08,68	33,80,42	25,31,16	8,86,57	34,17,73

The variations are explained in the entries on Central and Provincial Finance.

B.—Central Revenue and Finance.

737. The following statement shows the Central Receipts in 1921-22 as ccompared with those 1920-21. Central receipts.

Major Heads.	1920-21.	1921-22.	Increase	Decrease.
I.—Customs ...	11,79,52,814	14,26,71,766	2,47,18,952	...
II.—Taxes on Income	8,09,57,225	6,62,76,213	...	1,46,81,012
III.—Salt ...	1,38,94,618	1,55,77,569	16,82,951	...
IV.—Opium ...	2,98,87,846	2,39,00,219	...	59,87,627
X.—Tribute from Indian States	67,701	67,701	...	...
XVI.—Interest ...	12,48,286	12,22,026	...	26,260
XX—Ports and Pilotage	16,08,938	13,72,230	...	2,36,708
XXVI.—Miscellaneous Departments ...	2,09,025	1,08,610	...	1,00,415
XXVII.—Currency ...	18,519	12,635	...	5,884
XXX.—Civil Works ...	1,25,404	1,49,048	23,644	...
XXXIII.—Receipts in aid of Superannuation ...	1,78,222	2,09,285	34,063	...
XXXV.—Miscellaneous ...	10,25,134	15,49,026	5,23,892	...
Total ...	24,71,73,732	25,31,16,328	2,69,80,502	2,10,37,906

The important variations shown in the above table were mainly due to the following causes :—

Customs.—Enhancement of tariff rates.

Taxes on Income.—Smaller collections of excess profits duty and super tax and also heavy refunds.

Salt.—Larger import of salt due to increased consumption.

Opium.—Smaller sales of opium chests at the public auctions.

Ports and Pilotage.—A smaller number of vessels arrived at the port owing to the depression in trade.

Miscellaneous Departments.—Smaller collection of fees for registration of Joint Stock Companies.

Civil Works.—Special receipt on account of rebate from the Calcutta Electric Supply Corporation Limited.

Receipts in aid of Superannuation.—Larger receipts from subscriptions under the Indian Civil Service Family Pension Regulations due mainly to fluctuations in exchange.

Miscellaneous.—Larger receipts from freight tax as well as from unclaimed deposits.

738. The following statement shows the central expenditure in 1921-22 as compared with that of 1920-21. Central expenditure.

Major Heads.	1920-21.	1921-22.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
1. Customs	17,29,519	19,29,161	1,99,642	.....
2. Taxes on Income ...	3,11,468	3,81,301	69,833	.....
3. Salt	3,13,104	3,09,761	.....	3,343
4. Opium	41,545	40,022	.....	1,523
19. Interest on ordinary Debt ...	.....	8,84,165	8,84,165	.....
20. Interest on other obligations	5,77,325	4,92,046	.....	85,279
23. Audit	6,53,474	8,04,656	1,51,182	.....
27. Ports and Pilotage ...	15,24,121	16,92,794	1,68,673	.....
28. Ecclesiastical	2,56,319	2,59,320	3,001	.....
29. Political	34,916	22,075	.....	12,841

Major Heads.	1930-31.	1931-32.	Increase.	Decrease.
	Rs.	Rs.	Rs.	Rs.
30. Scientific Departments ...	.....	82	82	.....
33. Public Health	.....	.....	.....	.....
36. Aviation	.....	886	886	.....
37. Miscellaneous Departments ...	1,24,468	4,28,411	3,03,943	.....
38. Currency	25,942	34,134	8,192	
41. Civil Works	16,32,138	10,28,661	.....	6,03,477
44. Territorial and Political Pensions.	6,14,145	5,98,200	.....	15,945
45. Superannuation Allowances and Pensions	75,642	1,20,088	44,446	.....
46. Stationery and Printing ...	1,13,598	10,817	.....	1,02,781
47. Miscellaneous ...	82,753	3,82,479	2,99,726	.....
Total ...	81,10,477	94,19,059	21,33,771	8,25,189

The principal fluctuations are explained as follows :—

Customs.—Revision of pay of the preventive and appraisers' establishment.

Taxes on Income.—Revision of the pay of the staff.

Interest on ordinary debt.—Previous actuals were not booked in the office of the Accountant General, Bengal, but in the office of the Accountant General, Central Revenues.

Interest on other obligations.—Absence of payment of interest on sums held by Government on behalf of non-enemy nationals as these were passed on to Accountant General, Central Revenues, for adjustment during 1921-22.

Audit.—Payment of salary to certain officers under training in the Accountant General's office and of the central share of the local and outside audit departments.

Ports and Pilotage.—Repairs and outfits of pilot vessels and the increased price of coal supplied to them.

Political.—Absence of the Political Agent, Tripura State, on leave.

Miscellaneous Departments.—Census operations of 1921.

Civil works.—Absence of expenditure on Postal and Telegraph department buildings.

Territorial and Political pensions.—Death of certain pensioners.

Superannuation allowances and pensions.—Adjustment of pensions relating to central officers from 1st April 1921.

Stationery and Printing.—Reduction in supplies.

Miscellaneous.—Increased charges on account of repatriation and maintenance of British crews in German vessels.

Land Revenue.

[*See* Chapter II of this Report.]

Canal Revenue.

[*See* Chapter IV of this Report—Canals.]

Sources of Revenue other than Land.

CUSTOMS.

[Report on the Maritime Trade of Bengal for 1921-22.]

Revenue from Customs.

739. The gross revenue from Customs duties (inclusive of 2·66 lakhs paid into district treasuries on account of salt imported into Calcutta) amounted to Rs. 15,55,95,000 against Rs. 12,97,05,000 in the previous year. Refunds amounted to Rs. 20,23,000 against Rs. 29,60,000, so that the net revenue amounted to Rs. 15,35,72,000 representing an increase of 21 per cent. on the previous year's figures.

The gross import duties rose from Rs. 912·74 lakhs to Rs. 1,217·58 lakhs, of which 332·01 lakhs came from sugar, Rs. 270·24 lakhs from cotton goods and Rs. 137·14 lakhs from salt (including inland collections). Receipts on account of matches increased from Rs. 4½ lakhs to Rs. 30 lakhs owing to the imposition of a higher duty. The export duty collections fell off from Rs. 384·31 lakhs to Rs. 338;37 lakhs. Receipts from tea advanced by Rs. 6 lakhs, but the depression in jute resulted in a loss of Rs. 48·54 lakhs, and the lower tariff values ruling in the year caused a decrease in the receipts from hides and skins of Rs. 3·44 lakhs.

Receipts of the Ports. Calcutta and Subordinate Ports.

The net receipts of the Calcutta Custom House amounted to Rs. 15,28,49,960 against Rs. 12,60,16,338 in the previous year. The net income of the subordinate ports dropped from Rs. 32·73 lakhs to Rs. 31·82 lakhs owing chiefly to the repayment of Rs. 92,000 on account of revenue deposits.

Cases under the Sea Customs Act.

740. The number of cases dealt with under the Sea Customs Act in connection with the appraisement of imported goods was 844 against 1,848 in the previous year. The amount of extra duty realized was Rs. 1,49,977, and the penalties imposed Rs. 20,602. Under section 32 of the Act, 29 notices were issued, and 8 of these resulted in the taking over of goods on behalf of Government. In addition, there were 115 cases of misdeclaration of goods which were detected by the Exports and Statistical departments, and penalties amounting to Rs. 837 were imposed. In the port of Chittagong there were 29 cases in which the penalties imposed amounted to Rs. 611.

Cases under the Merchandise Marks Act.

741. There were 433 cases of infringement of the Merchandise Marks Act during the year against 1,663 in the previous year. Of these 348 related to false trade descriptions, and 66 were in respect of improperly stamping of piece-goods. The penalties imposed under this Act amounted to Rs. 4,315, as against Rs. 20,065 in the previous year.

SALT.

[Salt Administration Report for the year 1921-22.]

Salt credit system.

742. There was again an increase in the operations under the salt credit system. Securities to the extent of Rs. 1,00,55,300 were deposited during the year as compared with Rs. 95,46,400 in 1920-21. The amount of duty debited during the year under the system was Rs. 1,33,70,511 against Rs. 1,25,87,227 in the previous year. There were 85 depositors during the year as compared with 67 in 1920-21, 12 of whom, however, subsequently closed their accounts.

Imports.

743. The total imports to Calcutta and Chittagong decreased by 21·7 per cent. and 19·08 per cent., respectively. At Calcutta there was a large decrease in the import of salt from Europe and elsewhere. Indian salt alone showed an increase. At Chittagong the imports of salt from Europe increased, but those from Port Said and Aden decreased.

Consumption and prices.

744. The total quantity of salt which passed into consumption in this Presidency during the year under report was 8,814,794 maunds against 8,446,396 maunds in the previous year. This was exclusive of 4,892,671

maunds, The net export by rail, road or river to other provinces and frontier countries, but inclusive of 7,250 maunds issued free of duty for commercial purposes. The average wholesale price per maund of salt inclusive of duty was 8 pies higher than in the previous year. The average wholesale price of salt per 100 maunds in Calcutta fell from Rs. 158 in 1920-21 to Rs. 90 during the year under report. In Chittagong also the average price of salt per 100 maunds fell from Rs. 141 to Rs. 132. The average wholesale price per 100 maunds of Liverpool salt was Rs. 113 as compared with Rs. 130-0-7 in the previous year. In spite of these falls in price the average wholesale price per maund of 40 seers in the districts increased from Rs. 3-2-4 to Rs. 3-3-0

Financial results.

745. As compared with the preceding year the receipts of the department show an increase of Rs. 15,67,354 or 11·18 per cent. and the charges a decrease by Rs. 1,18,416 or 27·65 per cent.. The net revenue was Rs. 1,52,67,812 which was larger than that of the previous year by Rs. 16,85,770 or 12·41 per cent. The increase in the receipts occurred under the heads " Import duty on salt " and " rents of warehouses." The charges do not include any share of the cost of the Customs Preventive Service, which is largely employed in safeguarding the salt revenue.

Trade in saltpetre.

746. The quantity of salt reduced in the process of refinement of saltpetre was 288 maunds as compared with 780 maunds in 1920-21, and the quantity of *sitta* (impure salt) left in the course of refinement was 244 maund against 366 maunds in the previous year. There was a sale of 939 maunds of educed salt during the year under report.

EXCISE.

[Report on the Administration of the Excise Department, Bengal, 1921-22. Statistics of British India, Part IV (b). Finance and Revenue accounts.]

Excise Licensing Boards and Advisory Committees.

747. On the advice of the Licensing Boards of Calcutta and its suburbs the sites of 6 shops were changed, two shops were abolished and hotel licenses were sanctioned for two restaurants. No other change was made either in the number or in the location of existing shops. In the areas outside the Calcutta district all the recommendations of the Excise Advisory Committees were carefully considered and were generally followed. In accordance with these recommendations 48 shops were abolished, the sites of 47 shops were changed, and 3 new licenses were sanctioned.

Revenues.

748. The total excise revenue was Rs. 1,83,50,896 against Rs. 1,96,33,317 in the previous year, showing a decrease of Rs. 12,82,421. The heads which showed a decrease were country spirit (Rs. 4,77,801), hemp drugs (Rs. 3,47,182), wines and spirits, *i.e.*, foreign liquors other than beer, medicated wines and commercial spirits (Rs. 2,58,508), opium (Rs. 1,84,983), and *tari* (Rs. 1,32,010). Against this there was an increase of Rs. 1,06,938 under "Commercial spirits including medicated wines." As a net result, the incidence of excise revenue fell from 6 annas 10 pies to 6 annas 3 pies.

Country Spirit.

749. The system of contract supply was the only system in force during the year. The number of shops decreased by 88 and consumption by 167,157 proof gallons. Consumption increased in two districts and decreased in 25. Outside Calcutta, the decrease was considerable in Malda (10,768 proof gallons), due to the non-co-operation movement and the picketting of shops; in Dinajpur (7,841 proof gallons), due almost entirely to the picketting of shops; in Bankura (18,264 proof gallons), due to the increased rates of duty and the retail prices, combined with the slump in the lac business; in Bakarganj (2,561 proof gallons), due to the economic difficulties of the people; in Jalpaiguri (9,181 proof gallons), due to the decreased earnings of the tea garden coolies; in Tippera (3,531 proof gallons), due to the general inclination of the consumers to avoid drinking as an effect of the temperance movement; in Pabna (3,386 proof gallons), due to the enhancement of the retail prices of liquor; in Bogra (3,575 proof gallons), due to the temperance movement and picketting; in Rangpur (4,245 proof gallons), due to picketting by non-co-operation volunteers as well as to the smuggling of outstill liquor from the shops in Cooch Behar and distillery liquor from

Goalpara border shops at a cheaper price; in Murshidabad (4,994 proof gallons), due to the increase in the retail price and the temperance movement; in Rajshahi (3,005 proof gallons), due to the increase in price and to the temperance propaganda carried on in connection with the non-co-operation agitation; in Darjeeling (8,018 proof gallons), due to the slump in the tea industry; in Birbhum (2,377 proof gallons), due to the prevailing high prices of the necessaries of life; and in the 24-Parganas (18,115 proof gallons), due to enthusiasm for the temperance movement. The only increase occurred in the districts of Burdwan and Nadia, which was due in Burdwan (6,355 proof gallons) to the higher rates of wages paid to miners and labourers of all classes and to the development of new industries in the Asansol subdivision and in Nadia (1,266 proof gallons) to better supervision of licensees by the inspecting staff.

Tari.

750. The tree-tax system which was introduced in the Sadar and Serampore subdivisions of the Hooghly district and the whole of the Howrah district (with the exception of the areas included in the Calcutta district) continued in the same areas.

The total number of licenses issued for the sale of fermented and fresh *tari* decreased from 2,114 to 1,032 and the total receipts from Rs. 5,36,403 to Rs. 4,04,393.

Pachwai.

751. The total number of *pachwai* licenses issued was 17,304 as compared with 36,222 in 1920-21. The revenue from retail license fees increased from Rs. 9,60,834 to Rs. 10,08,912. The increase was considerable in the districts of Burdwan and Birbhum. In the former it was mainly due to the successful working of the *pachwai* shops in the Asansol subdivision and to larger consumption by miners and labourers of other classes, whose wages were enhanced.

Foreign Liquor.

752. The total number of licenses issued for wholesale and retail sale of potable foreign liquor, exclusive of licenses for the retail sale of medicated wines and commercial spirits was 810 against 727 in the preceding year. The total receipts from license fees amounted to Rs. 3,24,159 against Rs. 3,22,358 in the previous year. The receipts from duty on potable foreign liquor manufactured in India were Rs. 7,74,768 against Rs. 10,35,077 in the preceding year, the decrease being mainly accounted for by the abnormal fall in consumption which followed the enhancement of the rate of duty.

Ganja.

753. The total number of licenses issued for the retail sale of *ganja* was 1,206, as compared with 1,267 in 1920-21. The total receipts amounted to Rs. 34,33,436 against Rs. 38,16,458 in the previous year, showing a decrease of Rs. 3,83,022. The total quantity of *ganja* consumed amounted to 1,638 maunds as compared with 1,841 maunds in the previous year. Consumption decreased in twenty-two districts and increased in five. The decrease exceeded 10 per cent. in seven districts, *viz.*, Murshidabad, Khulna, Mymensingh, Bakarganj, Chittagong, Pabna and Darjeeling, and 20 per cent. in eight districts, viz., Tippera, Malda, Jalpaiguri, Dinajpur, Rangpur, Bogra, Rajshahi and Birbhum. A large decrease also occurred in Dacca (9 maunds and 29 seers). The fall in consumption was due partly to the temperance agitation which occupied such a prominent place in the non-co-operation movement and partly to the enhanced retail prices which were introduced from 1st October 1921. The abolition of a large number of shops also, to some extent, contributed to the decrease. The increase exceeded 10 per cent. only in the two districts of Burdwan and Howrah. It exceeded 3 maunds in Calcutta, the 24-Parganas and Hooghly. The increase in Burdwan was due to the higher rates of wages paid to miners and labourers of all classes and to the development of industries in the Asansol subdivision, and in Howrah to some extent to the fact that many of the liquor consumers took to smoking *ganja* owing to the prohibitive price of country spirit. In the 24-Parganas and Hooghly many people resorted to *ganja* as a substitute for the liquor which the non-co-operation volunteers had induced them to foreswear. The total taxation was Rs. 50-6-0 per seer, as compared with Rs. 50 in the previous year.

Bhang.

754. The total consumption of *bhang* amounted to 674 maunds against 780 maunds in the previous year. The total revenue from license fees and duty amounted to Rs. 1,91,500, as compared with Rs. 1,77,635 in 1920-21.

Charas.

755. The total number of retail licenses was 30 against 29 in the preceding year and the total revenue amounted to Rs. 86,309, as compared with Rs. 67,693 in 1920-21.

Opium.

756. The sytsem under which the issue of opium to retail shops is restricted to the estimated local demand continued in the districts in which it has been enforced previously. It was not found necessary to extend the system to any further areas during the year. The total number of licenses issued for the retail sale of opium was 820, as compared with 835 in 1920-21. The quantity of opium consumed fell from 1,066 maunds to 1,011 maunds. Consumption decreased in all districts except Hooghly and Chittagong where the increase was negligible. The total receipts amounted to Rs. 32,15,930, as compared with Rs. 34,00,913, in 1920-21, a decrease of Rs. 1,84,983 or 5·4 per cent., which was due to the fall in consumption.

Cocaine

757. The total number of licenses issued to chemists and druggists for the sale of cocaine was 334, as compared with 321 in 1920-21. Forty-five permits for the possession of cocaine were issued free to managers of hospitals or dispensaries not under Government supervision, of which 18 were for tea gardens in Jalpaiguri and the remainder for charitable dispensaries in various parts of the Presidency. Forty-four permits were issued to qualified medical practitioners and dentists. The total number of arrests for illicit possession of cocaine was 252 against 277 in the previous year. The illicit trade in cocaine declined in some measure. In Calcutta 167 ounces and 230 grains of cocaine were seized by Excise officers and 263 ounces and 397 grains by Customs officers, as compared with 130 ounces and 156½ grains and 120 ounces, respectively, in the previous year. The total quantity seized in Bengal was 462 ounces and 304½ grains, as compared with 204 ounces and 106 grains in 1921.

Excise offences.

758. The total number of persons arrested on charges under the Excise and Opium laws during the year was 6,762 and of persons convicted 6,356, as compared with 6,183 and 5,764, respectively, in the previous year.

STAMPS

[Annual statistics of the Stamp Department for the year 1921-22. Statistics of British India, Part IV(b) Finance and Revenue Accounts]

Revenue.

759. The total receipts under the Stamp and Court-fees Acts fell from Rs. 2,94,78,224 in 1920-21 to Rs. 2,83,25,202 in 1921-22, a decrease of 3·9 per cent. The decrease occurred in non-judicial stamps. The charges during the year amounted to Rs. 7,42,286 against Rs. 7,74,446 in 1920-21.

Judicial stamps.

760. The sale-proceeds from court-fee stamps (excluding stamps for copies) rose from Rs. 1,72,83,945 in 1920-21 to Rs. 1,75,44,514 in 1921-22. The sales in the Burdwan and Presidency Divisions were above, and those in the Dacca, Chittagong and Rajshahi Divisions below those of the previous year.

Non-judicial stamps.

761. The receipts from the sale of non-judicial stamps fell from Rs. 1,11,09,234 in 1920-21 to Rs. 97,27,799, a decrease of Rs. 13,81,435 which was shared by all the Divisions.

Sale of stamps.

762. The number of vendors who held licenses to sell stamps was 5,329 against 5,438 in 1920-21, and the amount of discount allowed to such vendors amounted to Rs. 4,01,121 against Rs. 4,48,540 in 1920-21.

763. The total number of cases in which deficient duty and penalty were levied under section 35 of Act II of 1899 came to 1,609 as against 1,406 in 1920-21, and the amount of duty and penalty realized was Rs. 10,466 as against Rs. 10,481 in the previous year. The total number of cases decided by Revenue Courts under sections 32, 37, 40 and 41 of the Act fell from 3,463 in 1920-21 to 3,176, but the amount of duty and penalty realized rose from Rs. 54,208 to Rs. 1,19,081. **Deficient duty.**

The number cases instituted for infringement of the provisions of the Stamp Act was 156 against 243 in 1920-21; 151 persons were brought to trial and 145 persons convicted against 274 and 265, respectively, in 1920-21. The fines imposed fell from Rs. 2,435 in 1920-21 to Rs. 1,849. The amount of rewards paid to informers was Rs. 828 against 856 in the previous year. **Prosecutions under the Stamp Act.**

764. Of the cases of valuation of estates for the issue of probate and letters of administration reported during 1921-22, including those pending at the beginning of the year, 69·2 per cent, were completely enquired into, against 61·8 per cent. in the previous year. The percentage borne by the deficit duty required to the amount originally realized was 10·6 against 6·9 per cent. in the previous year. **Working of sec. 19H of the Court-fees Act.**

INCOME TAX.

[Statistical information regarding the Income-tax Department for the year 1921-22.]

765. The number of persons assessed to income-tax during 1921-22 was 41,977, while the amount of tax assessed was Rs. 4,97,27,421 of which Calcutta assessments amounted to Rs. 4,65,61,806 or 93·6 per cent. leaving Rs. 31,65,615 for the rest of the province. **Financial results.**

766. The net collections in Bengal amounted to Rs. 3,82,41,211 of which Calcutta contributed Rs. 3,51,43,381 or 91·8 per cent. and the mufassal Rs. 30,97,830. **Collection.**

767. The total collection of super tax in Bengal amounted to Rs. 2,74,10,886 of which Rs. 2,71,76,063 was contributed by Calcutta alone or 99·14 per cent., leaving Rs. 2,34,823 for the rest of the province. **Super-tax.**

768. 'Only one person in 2,749 of the population outside Calcutta paid income-tax, and the average amount paid by each assessee was Rs. 187. In Calcutta which, for income-tax purposes, included the town of Howrah, the proportion was one person in 43 of the population and the average tax paid by each assessee was Rs. 1,385. **Incidence of tax.**

769. The net collections in Bengal on account of arrears of Excess Profits Duty amounted to Rs. 3,88,409 of which Rs. 3,53,981 represented Calcutta collection. **Excess Profits**

Forest Revenue.

[*See* Chapter IV of this Report—Forests.]

C.—Revenue and Finance other than Central.

PROVINCIAL FINANCE.

Receipts and expenditure.

770. The following statement shows the actual receipts charges on account receipts and expenditure of Provincial Services for 1921-22 as compared with those of 1920-21.

PROVINCIAL RECEIPTS.	ACTUALS.		PROVINCIAL EXPENDITURE.	ACTUALS.	
	1920-21.	1921-22.		1920-21.	1921-22.
	Rs.	Rs.		Rs.	Rs.
V.—Land Revenue.	3,04,47,008	3,01,97,156	5—Land Revenue ...	38,35,959	35,92,389
VI.—Excise ...	1,96,36,031	1,82,76,240	6—Excise ...	13,31,526	15,29,597
VII.—Stamps ...	2,79,29,713	2,73,84,490	7—Stamps ...	7,39,481	7,17,131
VIII.—Forest ...	21,82,863	19,23,722	8—Forest ...	13,36,750	12,88,122
IX.—Registration	26,81,046	25,47,705	9—Registration ...	15,01,417	15,62,635
XII.—Subsidized Companies.	1,04,439	1,68,464	14—Interest on works for which capital accounts are kept.	3,80,115	10,08,265
XIII.—Irrigation, Navigation Embankment and Drainage Works for which capital accounts are kept.	—1,43,726	2,05,872	15—Other Revenue Expenditure—Financed from Ordinary Revenue.	14,66,843	13,95,606
			15 (*i*) Other Revenue expenditure—Financed from Famine Insurance Grants.	749	...
XIV.—Irrigation, Navigation Embankment and Drainage Works for which no capital accounts are kept.	1,88,163	1,86,754	16—Construction of Irrigation, Navigation and Drainage works—		
			(*A*) Financed from Famine Insurance Grants.	...	...
XVI.—Interest ...	4,90,081	4,23,075	(*B*) Financed from Ordinary Revenue.	3,22,881	11,57,743
XVII.—Administration of Justice.	14,28,630	11,61,631	19—Interest on ordinary Debt.	...	—5,81,730
XVIII.—Jails and Convict Settlements.	15,06,429	14,71,564	21—Sinking Funds...	...	...
			22—General Administration.	1,01,86,308	1,07,10,385
XIX.—Police ...	3,62,130	3,65,219	24—Administration of Justice.	98,02,841	1,03,23,584
XX.—Ports and Pilotage.	13,482	21,831	25—Jails and Convict Settlements.	39,01,163	37,13,454
XXI.—Education...	11,09,775	10,65,481	26—Police ...	1,65,47,145	1,89,96,411
XXII.—Medical ...	4,98,118	5,44,895	27—Ports and Pilotage.	91,192	1,33,429
XXIII.—Public Health.	14,519	9,961	30—Scientific Department.	19,463	16,375
XXIV.—Agriculture	1,85,236	2,28,669	31—Education ...	1,07,59,081	1,18,72,599
XXV.—Industries...	8,00,544	15,50,492	32—Medical ...	38,02,203	49,49,763
XXVI.—Miscellaneous Department.	2,107	4,516	33—Public Health ...	12,58,365	15,30,386
XXIX.—Exchange	...	...	34—Agriculture ...	18,00,439	20,24,363
XXX.—Civil Works	6,64,024	6,95,931	35—Industries ...	8,81,948	10,93,496
XXXII.—Transfers from Famine Insurance Fund	...	...	37—Miscellaneous Departments.	1,98,115	1,99,299
			40—Exchange on transaction with London.	...	4,85,504
XXXIII.—Receipts in aid of Superannuation.	42,139	2,11,428	41—Civil Works ...	1,51,37,441	1,49,55,825
			43—Famine Relief and Insurance.	10,947	740
XXXIV.—Stationery and Printing.	2,05,468	1,90,842	45—Superannuation Allowances and Pensions.	38,72,563	43,87,450
XXXV—Miscellaneous.	5,19,589	2,32,882	46—Stationery and Printing.	19,31,857	24,11,386
			47—Miscellaneous ...	2,76,050	8,43,054
Total ...	9,08,67,808	8,86,57,076	Total ...	9,13,92,842	10,03,17,261

771. *Land Revenue.*—The decrease was mainly due to the absence of special receipts on account of *salami* in Government Estates. *Excise.*—The decrease was attributable to the non-co-operation movement. The fall in revenue under *Stamps* was due to trade depression and other economic causes and the drop under *Forests* was caused by the non-realization of outstandings from purchasers of trees. *Registration.*—The fall in the price of paddy and other economic causes were responsible for the decrease under this head. The increase in revenue under *Subsidized Companies* was the result of advance recovery of the Government share of profits from the Darjeeling-Himalayan Railway. The decrease under head—*Irrigation, Navigation, Embankment* and *Drainage.—Works for which capital accounts are kept* was due to larger working expenses of the Calcutta and Eastern canals. *Interest.*—The decrease was due to smaller recovery of interest on provincial loans and advances. The large decrease under *Administration of Justice* was the result of absence of special receipts on account of the sale-proceeds of unclaimed and escheated property. The increase under *Industries* was due to larger sales of sulphate of quinine and that under *Receipts in aid of Superannuation* is accounted for the recoveries towards the cost of pension relating to other provinces and deputation of several officers to the Dacca University. The fall under *Miscellaneous* was due to the absence of recoveries on account of Famine Expenditure. Receipts

772. The decrease in *Land Revenue* was due to the absence of special charges for the improvement of Kalimpong. The increase under *Excise* was mainly due to the revision of the Excise establishment, while that under *Registration* was accounted for by larger expenditure on temporary establishment and on the revised rates of pay sanctioned for menials. The large increase under *Interest—Works for which capital accounts are kept—* was the result of adjustment under the Reforms Scheme and is counterbalanced by the decrease under "19.—Interest on ordinary debt." The decrease in expenditure under—*Other Revenue expenditure financed from ordinary revenue*—was due to smaller expenditure on Government embankments whereas the increase under—*Construction of Irrigation, Navigation and Drainage works—B Financed from ordinary revenue*—was due to adjustment of charges on account of the Grand Trunk Canal hitherto debited to " Central " as also to a larger expenditure on capital works in the Madaripore Bhil route. The excess on account of the Grand Trunk Canal will disappear on readjustment of the charges against the loan sanctioned by the Government of India. The decrease under *Interest on ordinary debt* is counterbalanced by the increase under *Interest on works for which capital accounts are kept* owing to the adjustments consequent on the Reforms Scheme. The increased expenditure under *General Administration* was due to larger expenditure in the Executive Council, Ministers, and Secretariat establishment, and that under *Administration of Justice* to the payment of temporary allowances to clerks and to the creation of the Paper-Book Department of the High Court in the latter part of 1920-21. The drop in the expenditure under *Jails and Convict Settlements* was due mainly to reduced expenditure on the purchase of raw materials and other stores while the large increase under *Police* is the result of the revision of pay of the Police Force. The small increase under Ports and Pilotage was due to smaller recoveries on account of the charges of the Agent for Government Consignments. The increase under *Education* was due to larger grants to the Dacca University and to the revision of pay of the subordinate educational staff while that under *Medical* was due to the revision of pay of medical officers and to larger expenditure for the Mental Hospital at Ranchi. The small increase under *Public Health* was due to the revision of pay of officers and to larger grants for sanitary purposes. The increase under *Agriculture and Industries were* due to the expansion of the Agriculture and Industries Departments. *Exchange on transaction with London.*—Under the Reforms Scheme loss by exchange is being adjusted under this head with effect from the year 1921-22. The decrease in expenditure under *Civil Works* was mainly due to smaller expenditure on works. The increase under *Superannuation Allowances and Pensions* was due to the introduction with the Reforms of a revised system of inter-provincial adjustment of pension Expenditure.

charges. Larger expenditure on account of stationery for the Press and Forms Department accounted for the increase under *Stationery and printing*. The increase under *Miscellaneous* was due to the payment of a special grant to the Victoria Memorial and to charges in connection with the visit of His Royal Highness the Prince of Wales.

Road and Public Works Cesses.

[Report on the Land Revenue Administration of Bengal for the year 1921-22.]

Rate.

773. Except in the Chittagong Hill Tracts, where the Cess Act is not in force, the road and public works cesses were realized at the maximum rate of one anna in the rupee on the valuation of lands or annual net profits of mines and other immovable properties.

Demands and collections.

774. The valuation or gross rntal on which cesses are based amounted to Rs. 14,05,95,364 against a land revenue demand of the same area of Rs. 2,84,47,346. The proportion of land revenue to rental works out at 20·2 per cent. The total cess demand was Rs. 86,50,940 including arrears. The current demand showed a net increase of Rs. 2,00,535 over that of the preceding year. This increase was mainly contributed by the districts of Burdwan, Mymensingh, and Midnapore. The increase in Burdwan was due to the assessment of some new mines and royalty receipts, while that in the other two districts was obtained as a result of revaluation proceedings. The percentage of collections on current demand rose from 98·3 in 1920-21 to 99·7. The remissions increased from Rs. 9,170 to Rs. 33,560, of which a sum of Rs. 32,665 was granted in the district of Burdwan alone, consequent on the revision of assessment of coal mines under section 72 of the Cess Act. The percentage of total collections on current demand reached the standard of 100 per cent. or more in the districts of Noakhali (105·3), Bogra (105·3), Dacca (103·4), 24-Parganas (102·9), Tippera (102·4), Howrah (102·0), Faridpur (101·7), Murshidabad (101·4), Hooghly (101·3), Burdwan (100·0), Malda (100·3), and Rangpur (100·0).

Working of the Certificate procedure.

775. The total number of certificates filed for the realization of arrears of cesses was 48,469 against 40,102 in the previous year. The increase was shared by all the districts, except Birbhum, 24-Parganas, Khulna, Dacca, Bakarganj, and Malda.

The total number of certificates for disposal including those (10,877) pending from the preceding year, stood at 59,346 of which 42,569 were disposed of, leaving 16,777 pending at the close of the year. Of these 2,276 cases were pending for more than six months, the district of Burdwan alone being responsible for 587. In as many as 1,163 cases certificates were cancelled on such grounds as double assessment, death or desertion of certificate debtors, and filing of certificates against wrong persons. Arrears of cesses were recovered in 8,222 cases on the mere issue of notices of demand, in 25,936 cases on issue of notices for the attachment of property, movable and immovable, and in 4,473 cases on the issue of distress warrants and warrants of arrest, while recourse was had to actual sales only in 1,153 cases out of a total number of 59,346.

Valuation and revaluation.

776. Revaluations on a large scale under the control of the Collectors were in progress in the districts of Midnapore, Mymensingh, and Dinajpur. The assessment of coal mines in Burdwan and of certain *gazari* forests in the Dacca district was, as usual, revised under Chapter V of the Cess Act. Partial valuation or revaluation was undertaken in the districts of Burdwan, Hooghly, 24-Parganas, Murshidabad, Jessore, Faridpur, Chittagong, Noakhali, and Darjeeling.

Municipal Revenue.

[*See* Chapter III of this Report—Municipal Administration.]

CHAPTER VI.—VITAL STATISTICS AND MEDICAL SERVICE.

Vital Statistics.

[Report of the Director of Public Health, Bengal, for the year 1921.]

General results.

777. Although the health of the province was better during 1921 than in either of the three preceding years, the population of Bengal showed a decrease of 2·1 per mille. In the whole of India only three other provinces—the North-West Frontier Province, the United Provinces, and the Central Provinces—were worse than Bengal in this respect. All the other provinces showed an increase in population.

Birth-rate.

778. The provincial birth-rate of 1921 was 28·0 per mille, 6·7 per cent. less than that of the previous year, which stood at 30 per mille. But one-third of the reduction is accounted for by the change resulting from the recent census, in the population basis on which the birth-rate is calculated. Of the 1,301,001 births registered, 674,791 were males and 626,210 females. Only on three other occasions during the last 30 years has the number of births fallen so low, the last being in 1919, the year following the influenza epidemic Only ten districts returned a higher birth-rate than in 1920, in not a single district was the quinquennial average exceeded. Of these, three, including Calcutta, belong to the Presidency division, one to the Dacca division, one to the Burdwan division, and three to the Rajshahi division. Khulna district showed the highest increase, viz., 23·4 per cent. and Jessore came next with 17·8 per cent.

Death-rate.

779. The death-rate of 1921 was 30·1 per mille, against 32·7 in 1920. The recorded mortality was 0·5 per cent. below the mean of the decade 1911-20 and 3·6 per cent. below that of the last five years. The improvement was shared by 16 districts, including Calcutta, and was most marked in Tippera district where the deaths were nearly 15,000 or 24 per cent. below those of 1920, and the recorded death-rate only 17·3 per mille against 25·7 per mille. There was no increase in the total number of deaths in Nadia, Murshidabad and Bogra. The remaining eight districts showed a higher death-rate than in 1920. Among towns, Chandrakona recorded the highest death-rate of 52·1 per mille and four other towns, Ramjibanpur, Khirpur, Murshidabad and Jamalpur recorded a death-rate of over 40 per mille. In every division, except Dacca, where the death-rate is stationary, the death-rate fell in the Chittagong division by 19·4 per cent., in the Presidency division by 14 per cent., in the Burdwan division by 11·8 per cent., and in the Rajshahi division by 0·7 per cent.

Mortality according to age, sex and class.

780. Compared with 1921, the number of deaths among males declined by 5·2 per cent. and that among females by 5·5 per cent. About 50 per cent. of the total mortality occurred among persons over 20 years of age and about 32 per cent. in children under five years.

The death-rates among the various classes during 1921 were as follows:—Christians 19·2, Hindus 30·6, Musalmans 29·6, Buddhists 24·6, and other classes 39·6. Deaths among Buddhists showed the greatest reduction, viz., 11·1 per cent. Among Hindus, deaths were less by 7·2 per cent., and among Musalmans by 5 per cent. Darjeeling was the most unhealthy and Tippera the healthiest district for both Hindus and Musalmans alike. In the former, the death-rate of Hindus was 45·7 per mille and of Musalmans 49·8 per mille; in the latter Hindus died at the rate of 20·0 and Musalmans at 16·4 per thousand, respectively.

Infant mortality.

781. Infant deaths in 1921 were 268,192, compared with 282,090 in 1920. The total is less than that of any of the previous four years. But this is partly a result of the lessened number of births, for although the infant death-rate is 9 per cent. lower than in 1919 and 1920, it is still 12 per cent. above that of 1917. The marked variation in the death-rates of the several divisions accords with the general health conditions of these different areas

and shows a remarkable correspondence with the relative prevalence of malaria, the Burdwan and Presidency divisions being the worst, and Dacca and Chittagong the least affected, with the Rajshahi division occupying a position more or less midway between the two extremes. In Burdwan division especially an excess of infant births occurred within a few weeks of birth. In Dacca and Chittagong, on the other hand, the most dangerous period for infants was at a later stage. The differences suggest that in the more unhealthy areas, ill-health on the part of the mothers leading to excessive debility of the child at birth is an important factor in the destruction of infant life. Calcutta returned the highest rate of infant mortality, while eighteen districts recorded a death-rate of over 200 per mille. Tippera was lowest, with a death-rate of 133 per mille.

Verification of vital statistics.

782. 34,897 births and 24,391 deaths were reported to have been verified during the year, and 14,425 unrecorded births and 957 unrecorded deaths were discovered. In Khulna and Faridpur 52 and 14 per cent., respectively, of births were found unrecorded and 46 and 18 per cent. of omissions were detected in the death registers. Registration of births and deaths continues to be extremely inaccurate, especially in towns where the registration law is practically a dead-letter, and where nothing short of an entire remodelling of the existing legislation to ensure the appointment of proper registrars, who will have a direct personal interest in securing an accurate record of vital occurrences, will suffice to remedy the existing condition of things.

Cholera.

783. Deaths from cholera in 1921 numbered 80,547, representing 5·7 per cent. of the total mortality as against 54,199 in 1920. But in spite of this increase, the total was 4 per cent. below the mean of the last 10 years. The records of the past 20 years afforded evidence that cholera in Bengal is on the decline. When compared with the decade 1901-1911, the deaths from cholera during the last 10 years show a reduction of 309,546, or nearly 27 per cent. Greatly increased activity in public health administration, both central and local, has been a feature of the past few years, local authorities now employ health officers and subordinate staff, which formerly they did not possess, and the effects of these improvements and the education propaganda of recent years are now becoming apparent in decreased mortality from cholera. If we compare the cholera district death-rates with the average of the past 10 years, seven districts show an increase in 1921, the increase being greatest in the case of Bogra (3·5 against 0·9), Mymensingh (3·8 against 1·9), Pabna (3·2 against 1·9), Rajshahi (2·2 against 1·3), and Dacca (2·5 against 2·1). In Rangpur and Calcutta the increase was small. All the other districts show a decrease which, in many cases, is very considerable. The highest mortality in any one month (16,383) was in November and the lowest (1,556) in September. Cholera was entirely absent in six districts during periods of one month or more. Excluding Calcutta, 4,607 deaths from cholera were reported from towns in Bengal during 1921, was compared with 3,683 in 1920. Forty-two towns suffered severely during the year and 10 districts escaped entirely. Since health officers began to be appointed by district boards there is evidence of a gradually awakening interest in cholera prevention, and district boards bid fair to outstrip municipalities in the successful control of the disease.

Plague.

784. Plague has almost ceased to figure as a cause of death in Bengal. During the year there were 59 deaths in all from plague as against 66 in 1920. Of these 46 were males and 13 females. Calcutta reported 37 and Hooghly 13 deaths.

Fever.

785. During 1921, 1,070,368 deaths were returned under the heading "Fever," compared with 1,144,421 in 1920, representing a death-rate of 23·0 against the quinquennial average of 23·7. Fever mortality was especially heavy in the months of January, March, November, and December, and was lowest in July. A comparison of the reported fever deaths in the several divisions during the year with the average for the past 10 years indicate that there has been a slight increase in the case of the Presidency division and a greater one in the Dacca division. The other divisions, especially Chittagong, show a decline. Rajshahi district recorded the highest mortality, viz., 36·8 per mille against 31·2 in 1920, while 19 districts returned a death-rate of 20 per mille. Mortality was less in the remaining eight districts including Calcutta.

786. The experimental anti-malarial schemes in Burdwan, Murshidabad, and Jalpaiguri districts were under observation as in the previous year. At Meenglas the area of treatment was extended so as to include the portion formerly used as a control area. The fever index was 7 per cent. below the mean of the last four years. The spleen index among children permanently resident in the treated area was 56·5 during 1921, compared with 75·5, the mean of the previous four years. The malaria death-rate and the total death-rate, however, showed a slight rise, which is probably due to the very great increase in the birth-rate and the corresponding rise in infant deaths during 1921. At Singaran the malaria death-rate was lower and the spleen index shows better results than last year. Results at Jangipur show a very satisfactory reduction of the total death-rate, the infant mortality and the malaria mortality, and there has been a corresponding reduction in both the spleen index and the number of anopheles mosquitoes caught in the treated area Improvement has been most marked in the Jangipur side of the river, but since the completion of the work in the Raghunathganj side, similar progress is expected there also. In the Bankura valley there has been a reduction in the spleen index as well as in the total death-rate. **Anti-malarial work.**

787. During 1921, 76,439 boxes of quinine " treatments " were sold at post offices in Bengal, as compared with 78,397 and 78,810, respectively, in the two previous years. The smallest amount of quinine was sold in the Rajshahi division and the largest in the Dacca division, which is not surprising in view of the fact that malaria is increasing in that part of the province. **Quinine.**

788. Influenza has become a permanent feature of the provincial death-returns. In 1921, 4,751 deaths from this cause were returned, including 1,942 from 55 out of the 117 towns in Bengal, of which 927 occurred in Calcutta. The influenza death-rate was 0·1 per mille for the province and 0·6 per mille for towns as a whole against 1·0 per mille for Calcutta. In the towns of Darjeeling and Kurseong, however, the death-rate reached the alarming figures of 21·4 and 7·1 per mille, respectively. **Influenza.**

789. The hookworm enquiry and the stegomyia investigation were brought to a close during the year. The kala-azar survey was continued throughout the year and the districts of Noakhali, Chittagong, Jalpaiguri, Malda, and part of Darjeeling were examined. **Special enquiries.**

Emigration.

INLAND EMIGRATION.

[Report on Inland Emigration under the Assam Labour and Emigration Act, 1901 (VI of 1901), for the year ending the 30th June 1922, submitted by the Superintendent of Emigration, Calcutta, and the District and Assistant Superintendents of Emigration.]

790. The year 1921-22 was an uneventful one, its principal feature being a further falling off in the number of emigrants despatched to the labour districts. **Administrative measures.**

791. Recruiting operations in Bengal were conducted as usual in the districts of Bankura, Birbhum, Burdwan, and Midnapore and the number of garden sardars employed during the year was 259 as against 248 in the preceding year. All of them worked under the supervision of licensed local agents. The number of local agents' licenses issued was 12 as in the previous year. The total number of emigrants recruited in Bengal was 102 as against 86 in the previous year. The largest number of recruits was from Midnapore, viz., 78. The total number of recruits from Bengal and other provinces embarking at Goalundo was 11,407, as compared with 13,051 in the preceding year. The decrease is attributed partly to the depression in the tea industry and partly to improved agricultural conditions in the recruiting districts and in some measure to the present political unrest in the country. **Recruitment.**

No criminal case connected with emigration was reported during the year.

The rest-house for emigrants at Goalundo maintained by the Tea Districts Labour Supply Association was duly inspected and found to be satisfactory in every way.

Transport, sickness and mortality.

792. Arrangements for river transport were satisfactory. Nine deaths, of which one was due to cholera, were reported to have occurred among emigrants at Kharagpur. There was also one death from cholera among the emigrants at Naihati. Of the 11,472 emigrants who arrived at Goalundo, eleven died at the Goalundo Hospital. There was no death during the steamer journey to Chandpur among the 3,054 emigrants who embarked for the Surma Valley districts, and of the 8,353 emigrants who embarked for the Brahmaputra Valley only one died during the voyage.

Medical Relief.

CALCUTTA MEDICAL INSTITUTIONS.

[Report on the working of Hospitals and Dispensaries in Bengal, 1921.]

General.

793. The total number of hospitals and dispensaries in Calcutta during the year was 24 against 23 in the preceding year. The Carmichael Hospital for Tropical Diseases was opened during the year. The number of patients treated in these institutions was 445,088 (41,368 in-patients and 403,720 out-patients), as compared with 482,110 (41,824 in-patients and 440,286 out-patients) treated in the previous year. The decrease occurred almost entirely in the outdoor departments and principally at the Mayo Hospital, where the wards and the main hospital were under repairs and remained closed for eight months. There was an increase in the accommodation available for in-patients in class I, III and IV hospitals, viz., from 2,228 in 1920 to 2,285 in the year under report, which is accounted for by the opening of the special department for eye, nose and throat cases in the Campbell Hospital and of the Carmichael Hospital for Tropical Diseases. The special tuberculosis ward of the Medical College Hospital was opened from the 1st January 1921.

Nursing.

794. Altogether 376 nurses were employed in the indoor hospitals of class I, III and IV, as compared with 346 in 1920. During the year a scheme for standardizing the qualifications of nurses and midwives was sanctioned, whereby the State Medical Faculty of Bengal will henceforth control their training, conduct their examination and register the names of qualified nurses and midwives.

Diseases.

795. Cholera was epidemic in Calcutta throughout the year, resulting in 365 deaths, as compared with 295 deaths in 1920. The number of such patients treated in hospitals was 1,446 as against 1,335 in the previous year. Influenza was less prevalent, the number of patients declining from 10,494 in 1920 to 8,600 in 1921. There were 686 indoor patients, suffering from phthisis, of whom 305 died.

Finance.

796. The total cost of maintenance of the hospitals and dispensaries in Calcutta amounted to Rs. 30,64,923 which was Rs. 4,56,534 in excess of that of the previous year. The increased expenditure was primarily due to revision of pay of establishment, acquisition of land for the third block of servants' quarters, Medical College Hospitals, construction of the new Eye Hospital and additions to the Elliot ward and the surgical pavilion in the Campbell Hospital.

DISTRICT HOSPITALS AND DISPENSARIES.

Number of institutions.

797. Thirty-six new dispensaries were opened during the year and 3 were closed, as compared with 33 opened and 4 closed in the previous year. The total number of dispensaries at the close of the year was 827 against 794 in 1920.

798. Medical relief was afforded to 7,564,957 patients outside Calcutta, as compared with 7,311,782 in the year before. Of these, 70,053 were in-door patients, as compared with 72,407 in 1920. Number of patients.

799. During the year 2,350,367 persons or nearly one-third of the total number of patients yere treated for malaria against 2,270,000 in 1920. A steady increase was noticeable in the number of kala-azar patients, the numbers rising from 5,561 in 1920 to 9,198 in 1921. Diseases treated.

3,831 patients were treated for leprosy, as compared with 2,290 in 1920. The scheme for a leper colony received the general approval of Government during the year and sanction was given to the acquisition of the necessary land in the district of Midnapore at a cost of Rs. 52,559, the funds being provided from private sources.

800. The total income of classes I, III and IV institutions amounted to Rs. 19,23,534, as compared with Rs. 16,63,620 in the preceding year, while the total expenditure was Rs. 17,65,466 against 16,28,298. Government contributed 13·88 per cent. of the income against 14·84 per cent. in 1920, while the contributions from local funds amounted to 43·76 per cent. of the total income, as compared with 45·10 per cent. in the year before. Public subscriptions and donations increased from 17·33 per cent. to 21·43 per cent. Finance.

801. Medical relief was hampered in almost all districts by lack of funds and local bodies were unable to provide sufficient money out of their limited resources to meet the increased expenditure necessitated by high prices and enhanced rates of wages. Subscriptions declined and several hospitals were obliged to restrict their admission of in-patients to only the most urgent cases. Contributions for the services of Government medical officers were allowed in many cases to fall into arrears. In the hope of implementing their resources certain Mission and District Board dispensaries decided, with the sanction of Government, to levy a small fee from each new patient attending a dispensary—the very poor being exempted. The extension of medical relief in rural areas is an urgent necessity, but provincial revenues are unable to support any further charges, while the incomes of local bodies are inelastic and will not justify any immediate expansion of medical work on a large scale. Each year, research opens an expanding vista of usefulness to the medical profession; kala-azar has its remedy, leprosy can be checked and its cure is perhaps in sight, while the appalling ravages of venereal disease can be arrested in large measure. It is regrettable that the progressive application of medical science in these and many other directions should be so narrowly restricted by financial considerations. General.

Eden Sanitarium, Darjeeling.

[Report of the Eden Sanitarium and Hospital for 1921.]

802. The total number of admissions fell from 437 in 1920 to 369 during the year under report. This decrease was due to the enforcement of the rule restricting admission to persons in possession of medical certificates. The number of patients treated was also correspondingly less being 105 against 128 during the preceding year. Admissions.

803. The total receipts of the institution for the year amounted to Rs. 71,386 and exceeded the expenditure by Rs. 7,092—Rs. 692 was spent on alterations in the nurses' duty room in accordance with a suggestion made by the Surgeon-General, Bengal. The Municipality raised its water rate and house rate from the 1st April 1921, and expenditure under this head was therefore greater than in 1920. A pressure sterilizer was also purchased at a cost of £ 64-7-0 during the year at the suggestion of the Surgeon-General. The daily average cost of diet rose from Rs. 2-5-6 in the previous year to Rs. 2-6-11 in 1921. Finance.

Lunatic Asylums.

AND MEDICAL SERVICE.

[Report on the Lunatic Asylums in Bengal for the year 1921.]

Accommodation, population, admission and discharge.

804. The two lunatic asylums at Berhampore and Dacca, together with the Observation Ward at Bhowanipur and the insane ward attached to the Albert Victor Leper Asylum at Gobra, provide accommodation for 1,121 inmates (924 for males and 197 for females). The total number of insane persons treated in the asylums in Bengal during the year 1921 was 1,210, as compared with 1,263 in the preceding year, the daily average number of inmates being 957 against 967 in the previous year, while the maximum number confined at any one time was 988, as compared with 1,002 in 1920. Admissions and readmissions taken together numbered 187 in 1921 against 278 in 1920, while the number of persons discharged amounted to 138 in 1921, as compared with 189 in the previous year.

Health of lunatics.

805. The daily average number of sick increased from 116 in 1920 to 130 in 1921. The admissions into hospitals rose from 612 in 1920 to 861 in 1921.

Sanitation.

[Report of the Sanitary Board and the Chief Engineer, Public Health Department, Bengal, for the year 1921.]

Establishment.

806. In February 1921, the designation of the department was changed to "Engineering Branch, Public Health Department" and the Sanitary Engineer and Assistant Sanitary Engineer became the "Chief Engineer" and "Executive Engineer," Public Health Department, respectively. At the close of the year the staff consisted of the Chief Engineer five Executive Engineers, several Assistant Engineers, and a temporary staff of supervisors recruited from time to time to meet the needs of local work.

Sanitary Engineering.

807. Several important water-supply and drainage and sewerage projects were prepared by the Chief Engineer during 1921. Altogether nine schemes of water-supply and four drainage and sewerage schemes were in course of construction during the year under the control of the Chief Engineer. Three of these were completed. Considerable progress was made with the important Dacca sewerage scheme and the Kurseong project was practically completed. The total capital expenditure on water works amounted to Rs. 7,34,443, and on drainage and sewerage projects to Rs. 3,75,442. Sanitary works were also in progress at institutions, such as the Bengal Engineering College and Dacca University. Financial conditions hindered progress to a great extent; local bodies found it difficult to execute the schemes which they had adopted and Government was unable in many cases to find the grants-in-aid by which local enterprise is encouraged; almost every scheme under construction was partly or wholly held up during some part of the year for lack of funds and work on several projects had to be stopped altogether for some months. The important Tittaghur sewerage scheme for which the jute mill companies generously contributed nearly 7 lakhs has now received the approval of the Legislative Council, which was rendered necessary by the fact that the scheme commits Government, after about two years, to a capital expenditure of 3½ lakhs.

Sanitary Board.

808. The Sanitary Board was reconstituted in June 1921 and now consists of 12 members (four *ex-officio*), the Secretary, Local Self-Government Department being *ex-officio* President. Two of the non-official members are registered medical practitioners nominated by the Bengal Council of Medical Registration and the Governing Body of the Bengal State Medical Faculty. The members hold office for one year. The Board held five meetings in Calcutta and one in Darjeeling during the year and rendered valuable assistance to Government in the administration of the Public Health Department.

Mines Board of Health.

809. The Asansol Mines Board of Health continued to do good work. The Board's system for the prompt notification of epidemic disease has worked well and such notification has been followed up by vigorous measures to check the spread of disease. There were 1,200 cases of cholera, of which 583 ended fatally. The infant mortality rate (163 per mille), although high, was considerably below the provincial rate (over 200 per mille). The Board continued its campaign against malaria and the utility of its measures for the destruction of larvæ is reflected in an appreciable reduction of the spleen index of the settlement.

Vaccination.

[Annual Statistical Returns and Short Notes on Vaccination in Bengal for the year 1920-21.]

Small-pox.

810. During 1921, 8,157 deaths were reported from small-pox, compared with 36,190 in 1920 and 37,010 in 1919, the small-pox death-rate bing 0·18 per mille, as compared with 0·79 and 0·81, respectively, in the two preceding years. This great decrease is due to the usual periodical decline in the prevalence of the disease following the severe epidemics of 1919 and 1920. Small-pox tends to recur in epidemic form at intervals of from five to six years and every fourth recurrence appears to exceed the intermediate ones in extent or severity. Small-pox was most prevalent during 1921 in the Dacca division, the death-rate being 0·23 per mille, and 36·7 per cent. of all the deaths from small-pox in Bengal occurring there. In every district small-pox mortality was lower during 1921 than in 1920.

Vaccination.

811. The number of vaccinations performed during the year was 2,326,497, of which 1,420,037 were primary and 906,460 were revaccinations. There was thus a decrease of 226,062 cases in primary vaccination and 634,088 in revaccination, as compared with the previous year. The decrease was due to the greatly lessened prevalence of small-pox during the season. Free vaccination was introduced by the District Boards of Rangpur, Chittagong, and Tippera during the year, and it was continued in Burdwan, Birbhum, Howrah, 24-Parganas, Jalpaiguri and Bakarganj. Several Union Boards in the Dacca district carried on free vaccination in their jurisdiction, while the District Boards of Dacca, Mymensingh, Faridpur, and Noakhali, appointed a number of paid vaccinators for the suppression of small-pox in their districts. During the latter part of the year the compulsory Vaccination Acts (V of 1880 and II of 1911) were extended to all the rural areas in the Presidency administered by District Boards, except in the districts of Darjeeling and the Chittagong Hill Tracts, where free vaccination has been in force for a long time.

The Poisons Act.

[Report on the working of the Poisons Act (XII of 1919), during the year 1921.]

Working of the Poisons Act.

812. The provisions of the Act and of the rules issued thereunder were made known to the public in the same manner as in the previous years. The total number of licenses granted during the year under review throughout the Presidency, including Calcutta, was 171 under section 2, and 248 under section 4, as compared with 170 and 234, respectively, in 1920. In Calcutta the total number of licenses issued under both the sections amounted to 145 against 139 in the year 1920. The shops of licensed vendors of poisons were inspected by police and other officers. No serious irregularities were detected. A prosecution ending in conviction was instituted in Jalpaiguri; there were no other cases, either in Calcutta or in the mufassal. Some cases of cattle poisoning, in which prosecutions were instituted under the Indian Penal Code, were reported from certain districts of the Presidency division: the accused in each case were convicted. Unlicensed sale of poison was suspected in some districts, but it was difficult to bring such cases home to the offender. The attitude of the public towards the working of the Act continued to be one of indifference.

CHAPTER VII.—INSTRUCTION.

General System of Public Instruction.

Directing and inspecting agencies.

813. With the inauguration of the Reforms in January 1921, Education (excluding European education) became a transferred subject, and the supreme control of the department is now vested in the Ministry of Education. The Director of Public Instruction, who previously acted as *ex-officio* Deputy Secretary to Government in the Education Department, has since been relieved of his dual capacity (except in matters relating to European education) and remains in executive charge of the department. In the central office, he is assisted by two Assistant Directors, one of whom is concerned exclusively with Muhammadan education. Outside, his chief educational advisers are the Divisional Inspectors and Second Inspectors, who are in charge of the divisions into which the province has been divided for educational purposes. In matters relating to European education the Director's adviser is the Inspector of European Schools, Bengal, who has no Second or Assistant Inspector. The posts of Assistant Inspectors have recently been abolished and the incumbents have been posted to different civil districts as District Inspectors. District Deputy Inspectors have ceased to exist and Subdivisional Inspectors have taken the place of Additional Deputy Inspectors. The posts of Assistant Inspectors for Muhammadan education have, however, been retained with the object of safeguarding Muhammadan interests. Under the Subdivisional Inspectors are Sub-Inspectors and Assistant Sub-Inspectors, who constitute the subordinate inspecting agency for the district. To these may be added a number of Inspecting Maulvis who inspect *mukṭabs* and Inspecting Pandits who are servants of the District Boards.

The Divisional Inspector, whether European or Indian is an officer of the Indian Educational Service, while the majority of the Second Inspectors and all District Inspectors, who are all Indians, belong to the Bengal Educational Service, as the Provincial Educational Service is now called. The Subordinate Educational Service has of late been reorganized and inspecting officers have been separated from the clerical and teaching staff.

A time-scale of pay has been introduced in all the services by which the pay and prospects of all officers have been considerably improved.

The administration of girls' schools of all classes has now been entrusted to women inspecting officers. Two Inspectresses for the East and West Divisions into which the Presidency has been divided are assisted by a number of Assistant Inspectresses in the supervision of general, Muhammadan, and zanana education. The two Inspectresses belong to the women's cadre of the Indian Educational Service and the others to the women's branch of the Bengal Educational Service. In addition to these there is an Assistant Director of Public Health and School Hygiene for the medical inspection of secondary schools. Industrial and technical institutions (except the Bengal Engineering College and the Ashanulla School of Engineering, Dacca) are now under the control of the Director of Industries.

Inspectors of Schools.

814. Inspectors of Schools are responsible for the general administration and for inspection of all Government High Schools and a certain number of privately-managed institutions within their divisions. Subject to the general control of the Inspector, the Second Inspector has charge of the High Schools in clearly-defined areas. The District and the Subdivisional Inspectors are primarily responsible for the middle and the *guru*-training schools in their respective jurisdictions, and are also expected to inspect a certain percentage of primary schools in order to be in close touch with the primary education of the district and to be able to advise the District Board on educational matters. A proposal to invest the District Inspectors with

higher powers is under consideration. The area under a Subdivisional Inspector is divided amongst Sub-Inspectors and Assistant Sub-Inspectors according to thanas. The Sub-Inspector has many and varied duties to perform. Besides visiting the primary schools and organizing the classes with a view to securing proper management and control, he has to see that stipends are paid regularly to the teachers in charge of schools and not to interlopers, and to promote the spread of education among the masses. He is the chief agency upon whom higher authorities rely for miscellaneous departmental returns and reports. The Inspecting Pandits, who are more properly called *Guru* Instructors, are useful intermediaries between the educational officers on the one hand and the masses on the other; they impart instruction to the *gurus* in methods of teaching and assist in the inspection of primary schools.

Educational responsibilities of District Boards and Municipalities.

815. The District Boards, as constituted under the Bengal Local Self-Goverment Act, control primary education in general, and middle and technical education in particular through the agency of the Local Boards and the more recently-started Union Boards. The District Inspector as an *ex-officio* member of the Education Sub-Committee advises the Board in all educational matters. The relations of the department with the District Boards have always been harmonious. The introduction of the Panchayati Union scheme is expected to improve the quality of general primary education by the establishment of a better type of school on which other primary schools will, it is hoped, model themselves. The District Board funds available for educational expenditure are derived from the income of pounds and ferries, Government contributions, and Public Works cesses. The schools under the care of the District Boards are financed either by direct payment of all expenses incurred or by a system of grants-in-aid or stipends, disbursed according to the requisitions of the departmental inspecting staff, based on certain prescribed tests.

Since the abrogation in 1910 of the Government order of 1902, which required a municipality to spend 3·2 per cent. of its income on primary education, some municipalities have spent above this limit, while others have failed to reach it. Municipal expenditure is chiefly confined to primary schools. The municipal budget is either prepared by the District Inspector or communicated to him for scrutiny and opinion. His proposals are generally accepted. There is generally no representative of the department on the Municipal Boards, and municipal commissioners are not always alive to the necessity of facing the problem of mass education within their areas. In view, however, of the promulgation of the Primary Education Act of 1919, which has formulated a scheme for the expansion of elementary education in urban areas, these bodies will probably devote more attention to this problem in future.

Classification of institutions.

816. The main divisions of educational institutions are collegiate, secondary, and primary.

Apart from collegiate education, secondary education is imparted in High English, Middle English, and Middle Vernacular schools. The High schools work under a curriculum based upon the requirements of the Matriculation examination of the University, while the Middle schools are controlled by the department through the District Boards, by codes of rules and executive orders. Secondary education is, therefore, that stage of education which is above the primary but is below the collegiate, and every secondary school must contain the middle or the high stage though not both. Most secondary schools have primary classes. The Middle school stage extends for two years after the Primary stage, and that of the High school four years after the Middle stage. Beginning from the infant stage a boy is expected to reach the top class of a High school in 12 years and finish the Primary and Middle school courses in eight years. Although the teaching of English in Middle Vernacular and Upper Primary schools has, of late, been authorised, the medium of instruction has always been the vernacular in these schools, as also in Middle English schools and the lower forms of most High schools. Middle Vernacular schools include what are known as

circle schools, the remnant of an old order of things. As an inevitable consequence of the popular demand for English education the Middle Vernacular schools are gradually disappearing. Besides the schools noticed above, there are institutions for the study of law and medicine, for the training of teachers, technical and industrial schools (including commercial and agricultural schools). Oriental learning is fostered in *tols* and madrassahs. Schools in Bengal may be generally grouped in three classes—Government schools, aided schools, and private schools.

The part played by missionary agencies in educational work has continuously increased in efficiency and importance and these now maintain a large number of all types of schools, aided in many instances by substantial grants from Government. All aided institutions and all privately-managed institutions desiring affiliation to the Calcutta University must have properly constituted and representative governing bodies and conform to recognized standards. There are still in existence, however, a number of private institutions which have no accepted departmental or University standards and control. They consist chiefly of advanced institutions teaching Arabic, Sanskrit or other oriental classical languages and elementary schools teaching the Koran only .

Primary education.

817. The main object of primary schools is to impart education to the masses in their own vernacular in those subjects that are appropriate to their position in life.

A curriculum for the whole province has been drawn up to take effect from January 1923. Stress has been laid in the scheme upon the teaching of the ordinary elementary school subjects, while geography, nature-study, English and handwork have been made optional. The improvement and expansion of primary education form one of the chief aims of the department, and recently a scheme for the systematic organization of free primary schools was worked out and given effect to in some urban areas. The needs of the mufassal also are fully appreciated, but little progress in this direction is possible until the economic depression that has followed in the wake of the War has in some measure lifted.

Secondary education.

818. So long as the demand for secondary education and secondary schools was on the increase, there was a general tendency in Primary and Middle schools ultimately to develop into High schools; and notwithstanding the increased cost of education in High schools, they were more popular than the Middle schools, where the vernacular was the medium of instruction in all subjects save English. Although this demand has, of late, decreased, the rate of decrease in pupils is more rapid in the case of Middle Vernacular schools than in that of Middle English schools. High schools include those institutions which are recognized by the Calcutta University as capable of affording suitable preparation for the Matriculation examination. By including High schools in its list of recognized institutions or excluding them from it, the University enforces its rules for their proper management and the University regulations must be complied with before a school can be financed by Government. Most of the schools are under private management, but it is the policy of Government to maintain one or more well-staffed and well-equipped High schools under Government management as models in every district. These are all situated at district or subdivisional headquarters.

Government High and Middle English schools and all aided secondary schools are managed by committees constituted in accordance with rules prescribed by Government and representing the guardians of pupils, the teaching staff, and the founders and benefactors of the school. Head Masters of Government High schools were recently promoted to the Bengal Educational Service and all Assistant English Teachers, Head Pandits and Head Maulvis to the Subordinate Educational Service. For other classical teachers and all vernacular teachers a new service called the Vernacular Teachers' Service was created. The pay and prospects of all these teachers have been improved by the introduction of a time-scale of pay in place of the old graded system. A scale of remuneration has also been prescribed by the University for the teachers of privately-managed high schools.

The curriculum in some aided High schools has been expanded to include manual training classes in carpentry, spinning, weaving, etc., and the experiment has proved popular and met with a considerable amount of success.

The cost of maintenance of secondary schools has been very considerably enhanced by modern conditions and requirements, to meet which, it is noteworthy that the consequent increased expenditure from private sources has not kept pace with that from public funds.

Examinations.

819. The only public examinations are the Matriculation examination held by the University at the end of the High school stage, and the scholarship examinations held by the department at the end of the Middle and Primary stages. All other examinations are private *in situ* tests culminating in the grant of school-leaving certificates. The Matriculation examination has been regarded as a poor criterion of a student's academic attainments, and the school examination an unsatisfactory substitute for a public examination on a large scale.

Scholarships.

820. The public scholarships in connection with general education are intended to form a ladder leading from the lowest stage of primary education up to either University education or technical and professional training. The stages in the educational system at which scholarships are awarded are at the end of—(1) the lower primary stage, (2) the upper primary stage, (3) the middle stage, and (4) the secondary stage (University Matriculation examination).

Scholarships are awarded from local and municipal funds, in accordance with the statutory rules on the subject, on the results of the examination held at the close of the lower primary stage, whereas the scholarships awarded at the end of the upper primary, middle and high stages are debitable to provincial revenues. The value, number, and the tenure of these scholarships have undergone revision, and considerable improvements have been effected to meet popular demands. All scholarships are tenable in schools possessing scholarship rights. Separate provision is made for girls, Muhammadans, and for pupils of backward classes. There are also special denominational and endowed scholarships, competitors for which must possess special prescribed qualifications. College and post-graduate scholarships are awarded to none but the most meritorious students.

Education of Indian girls and women.

821. The organization of the school system for girls does not differ materially from that for boys—they are similar in classification or gradation, and in management. The curriculum is slightly modified by the inclusion of such subjects as needle-work, domestic economy, etc. Of the three Arts colleges for Indian girls, the Bethune College is maintained by Government; while the Diocesan College receives aid from the department. The third, Loreto House, is an unaided institution. Intermediate College classes have been opened in the Eden High School for Girls, Dacca, a Government institution, since July 1921. A number of other schools, such as the urban girls' schools, model primary schools, peasant girls' schools, panchayati union girls' schools, technical schools for girls, *purdah* schools, and primary schools for depressed classes cater for the elementary education of Indian girls.

Peripatetic needle-work teachers and zenana teachers who convey instruction either by house-to-house visitations or at central gatherings held at selected places, complete the system of female education in general. Progress is slow, however, for it is difficult to induce parents to keep their girls at school long enough to complete even the lower primary course and the school career of the average girls does not extend beyond six years. A good many schools under Mission or Brahmo management are in receipt of aid from public funds. Private associations, such as the Uttarpara Hitakari Sabha, the National Indian Association, the Girl Guides' Association, have also identified themselves with the spread of female education by awarding scholarships and rendering assistance in other ways. The appointment of a Medical Inspectress has been attended with beneficial results, for example, in improving sanitary conditions in girls' schools. The salary of model school teachers has been raised considerably in order to attract a better class of

teacher. Delegation of administrative control to the Inspectress has simplified the whole process. The industrial schools have been transferred to the new Department of Industries, which acts in collaboration with the Inspectress of Schools in matters relating to the renewal of grants.

European education.

822. The institutions for Europeans are classified as higher secondary secondary, higher grade, primary special, technical and industrial, commercial and training schools. All schools are required to conform to the European Code. They are fairly well distributed throughout the Presidency, although the largest number are situated in Calcutta and its neighbourhood, viz., Kidderpore, Howrah, Chitpur, and Entally, and in Darjeeling, and are attended by non-Europeans also, both boys and girls. Of these institutions only a few are maintained by Government, the rest are controlled by religious bodies, the Roman Catholic Mission maintaining a preponderance in the number of schools and scholars alike. Some institutions, mainly intended for Indians and affiliated to the Calcutta University, occasionally prepare Europeans and Anglo-Indians for University degrees, but the collegiate education of Europeans and Anglo-Indians, as a thing apart from that of Indian, is practically non-existent. An increasing number of European girls in Bengal after taking part of the higher local course proceed to colleges in England for higher education. The Government of India, however, refuse to consider holders of a full certificate of the Cambridge Higher Local examination as elegible for State scholarships, and insist that candidates for such scholarships shall be graduates. Assistance is received from Government in the shape of ordinary maintenance grants, salary grants, boarding grants, cadet grants, special grants, and building grants, while several special endowments, such as the Doveton Property, the Bruce Institution, and the recently formed Sussex Trust, are restricted to Europeans and Anglo-Indians.

The popularity of the Boy Scouts and the Girl Guides movements in these European schools is a noteworthy development.

Education of special classes.

823. The Nawab Bahadur's Institution at Murshidabad provides special arrangements for teaching the boys of the Nizamat family. The Bengal Social Service League, the Society for the Improvement of the Backward Classes, Bengal and Assam, and the Depressed Classes Mission in Dacca, claim to have opened and maintained a number of schools of Middle English and Primary status in several districts of the Presidency, for the education of *Namasudras*, *Muchis*, and other low castes. A scheme for the improvement and expansion of education among the Santhals in the districts of Bankura, Birbhum, and Midnapore was recently sanctioned by Government. The American Baptist Mission work in Midnapore and the Sarenga Mission work in Bankura deserve special mention in this connection. There are special schools for the *Garos*, *Hadis*, *Hajangs*, and *Koches* who live at the foot of the Garo Hills, for *Maghs* in Bakarganj, for *Chakmas* and *Tipras* in the Chittagong Hill Tracts, for *Bhutias* and *Lepchas* in the Darjeeling district. Improved educational facilities in the shape of free tuition and special stipends are afforded for primary education in the colonization areas in the Sundarbans. The Calcutta Deaf and Dumb School and the Calcutta Blind School are the most important of the schools for defective children. Schools for the education of the children of coolies employed in tea gardens exist in the districts of Jalpaiguri and Darjeeling, where the schools are maintained on a grant-in-aid system, the planters meeting the initial charges. There are schools for the children of factory coolies in the industrial area around Calcutta. The Childrens' Home, Kurseong, run by Miss S. Laplace, offers special facilities for the training of physically and mentally defective European children. Several schools have been started lately in the district of Dinajpur, where Santhal children receive free education, the District Board receives a grant from Government for maintaining them.

Education of Muhammadans.

824. In order to remove some of the difficulties that beset the education of Muhammadans, special arrangements are made for reserving a certain percentage of vacancies for Muhammadans in all Government institutions, for providing funds for special scholarships, for combating difficulties of residence, for earmarking grants for madrassahs, and for offering facilities for their study in colleges. Koran schools and *muktabs*, middle, junior and senior madrassahs are the institutions specially designed to meet the needs

of the Moslem community. The syllabus of studies has been remodelled, and the revised course introduced in the Government senior madrassahs. All the aided senior and junior madrassahs and many unaided middle madrassahs have also adopted the course. Secularisation of *muktabs* is an important factor in the Muhammadan educational system, and the revised curriculum, which includes the primary course combined with the ritual of Islam and selections from the Koran is specially adapted for their needs. Secularised *muktabs* in District Board areas receive 50 per cent. higher grants than primary schools, the money for which is provided by Government. Model *muktabs* under the direct management of the department are a special feature of West Bengal. The Calcutta Madrassah continues to follow an independent course and is now the institution in Bengal which prepares students for the examinations of the Board of Examiners. The Madrassah Title examination has been assimilated to the Sanskrit Title examinations.

Stipends created out of the Mohsin funds are awarded to Muhammadan students on the results of the Matriculation examination.

The new University at Dacca includes a Moslem Hall. Recently one Assistant Director of Public Instruction and five Assistant Inspectors of Schools, one in each division, were appointed to look after the educational interests of the Muhammadan community.

Study of Oriental Classical Languages.

825. Arabic and Persian are taught in the madrassahs and *muktabs* of which mention has already been made, and also in the Presidency College. In the *tols* instruction is given in the Sanskrit language and literature and in the various systems of Hindu philosophy. Many of them are aided by Government, and perhaps the most famous are those of Nabadwip in Nadia and the Sanskrit Colleges of Bhatpara and Mulajor in the 24-Parganas. Some *tols*, like the Oriental Department of the Sanskrit College, Calcutta, prepare candidates for the first and second Sanskrit examination and for the Sanskrit Title examination. The object of the college is to combine all that is best in indigenous Sanskrit learning with the more scientific methods of European Sanskrit scholars. There is a Board of Examiners for Sanskrit Examinations, now called the Sanskrit Association, which examines about 8,000 candidates annually, and as such it has attained to something like the status of a University. There are about 1,630 *tols* under its jurisdiction in Bengal and Assam, and its sphere of activity extends as far afield as Gujerat.

Training of Teachers.

826. The Dow Hill Girls' School, Kurseong, has attached to it a training class for European female teachers. The maximum number of students admissible is 20 and the course is of two years' duration. There are no facilities in Bengal for the training of European male teachers.

Teachers in Indian schools fall into three classes. Those who teach—(*a*) through the medium of English, (*b*) through the medium of the vernacular in secondary schools, and (*c*) through the medium of the vernacular in primary schools. These are trained at the following institutions:—

(1) The David Hare Training College, Calcutta, which was started 14 years ago, is the only institution under Government management at present affiliated to the Calcutta University for the training of teachers who teach through the medium of English. When the undergraduate training class attached to the London Missionary Society College, Bhowanipore, was abolished, the David Hare Training College undertook the training of undergraduate teachers also. It thus carries on both B.T. and L.T. classes. Teachers and subordinate inspecting officers in Government service, teachers from aided schools, and outside intending teachers are admitted for training. The tutorial staff has been strengthened and the library thoroughly reorganized. Arrangements have been also made for the teaching of special subjects, such as geography, drawing, and drill. The attached Hindu hostel has proved a valuable adjunct to the college. Nearly 50 students are trained each year.

(2) The Dacca Training College has become independent of the Calcutta University and now prepares candidates for the L.T. diploma and the B.T. degree of the Dacca University. It also receives research students for the M.T. diploma of the same University. The syllabus has been adapted to suit the Dacca University course of studies, and manual work has been introduced as a special subject.

(3) The Diocesan College has B.T. and L.T. classes affiliated to the Calcutta University. The Loreto House training classes have ceased to exist. The training class for mistresses attached to the Eden High School, Dacca, which has been transferred recently to the control of the Inspectors of Schools, Dacca Circle, admits women teachers with some knowledge of English.

(4) The first grade training schools, otherwise called normal schools, of which there is one in each division, train teachers for the lower classes of High schools, for Middle schools and for *guru*-training schools. Inspecting Pandits are recruited from their successful students. Government bears the entire cost of maintenance of these schools. The training course lasts three years in West Bengal and two years in East Bengal. Admissions are regulated by a preliminary test and stipends are awarded to deserving students. There is also an aided school at Krishnagar, managed by the Church Missionary Society mission, which is doing useful work.

(5) *Guru*-training schools form the recruiting ground for primary school teachers. They are subdivided into higher grade and lower grade institutions and have been established all over the Presidency. A scheme is being introduced which aims at the establishment of central *guru*- training schools of an improved type under the control of trained graduates. *Muallim* training schools of the same status as *guru*-training schools and intended for the training of Urdu teachers, have been established in some divisions.

(6) The Ballygunge training class for Hindu widows has been thoroughly reorganized. A training class has been opened in the Brahmo Girls' School, training school for Muhammadan women has been started by Government in Calcutta, and a training school for Santhal *gurus* has been opened under missionary auspices in the Burdwan Division. Besides these there are training classes for female teachers under missionary management.

Professional Colleges and Schools.

827. Law is studied in the University Law College, which has more than 1,600 students, and the Ripon Law College, which has over 600. Both the colleges are affiliated to the Calcutta University. The latter depends entirely on fees. The Law Department of the old Dacca College is now a branch of the newly-established Dacca University.

Medicine.

828. Two Medical Colleges, one in Calcutta and the other at Belgachia, are affiliated to the Calcutta University. The first is under Government management, while the latter is a private institution but receives State aid. Other medical institutions are the Campbell Medical School, the Dacca Medical School, and the Ronaldshay Medical School at Burdwan. Applicants for admission everywhere far outnumber vacancies. The Bengal Veterinary College at Belgachia has a three-year course. Instruction is imparted in English, and diplomas are granted to successful students on the results of the final examination, which is conducted by a Board of Examiners. It has also a post-graduate course for veterinary assistants. During the last three years 88 per cent. of the students who completed the course, succeeded in obtaining employment under Government or local bodies.

Engineering and Technical Colleges and Schools.

829. The Engineering College at Sibpur, now called the Bengal Engineering College, is the only institution which prepares students for the Bachelor of Engineering and the Intermediate Engineering examinations. The full Civil Engineer course extends to four years of college study, followed

by one year of practical training in some engineering workshop. There are three separate branches in which the students are trained, viz., civil engineering, mechanical and electrical (three years' college and one year's practical training), and mining (with three engineering years' college study). Students who pass through the course appear to secure suitable employment without difficulty. There is also an industrial section, formerly called the Artisan Department, in which carpentry and blacksmithing are taught. The apprentice classes are now called mechanical, electrical and mining engineering classes. The course of studies has recently been revised. A certain number of special students are admitted to the mechanical, electrical, and mining courses for a period of training the length and character of which are left to the discretion of the Principal. Selected telegraphists are also deputed annually to the college for a few months' training. Students from other provinces are admitted in limited numbers.

Besides the college staff, certain practising engineers are appointed to deliver lectures on such subjects as water-supply, drainage and sewerage, and structural engineering. The Public Works Department Divisional Accountants' examination and the Pleaders' Survey examination are held regularly each year at the college.

The control of the mechanical and electrical engineering courses now vests in a newly-created Board of Apprenticeship Training, while mining education is controlled by the Mining Education Advisory Board.

In the Ashanulla School of Engineering, Dacca, which has been separated from Dacca College, and removed to buildings formerly called the Secretariat Press, two new courses, called the upper and lower subordinate courses, are taught in place of the old overseer and sub-overseer courses. The school also has an artisan department. Instruction in surveying is imparted by the Mainamati Survey School, Comilla, which provides a two-year course, and admits *amin* students and kanungos for training. The courses taught at the School of Engineering, Dacca, are controlled by the Joint Technical Examination Board. Survey education is under the control of the Survey Education Advisory Board.

The Technical School at Burdwan, which is managed by the District Board, teaches the sub-overseer course. The Technical School at Lillooah, East Indian Railway, is intended for employees of the East Indian Railway. The course is both theoretical and practical.

The Barisal Technical School, which teaches carpentry and tinsmithing, is under the direct management of Government.

At the Comilla Elliott Artisan School, which is managed by the District Board, carpentry, blacksmithing, tinsmithing, weaving, brass-moulding, and mechanical engineering are taught.

The Elliott Banamali Technical School at Pabna and the Rajshahi Diamond Jubilee School teach the lower subordinate, *amin*, and artisan courses.

The Calcutta Technical School and the Kanchrapara Workshop of the Eastern Bengal Railway both undertake the training of apprentices.

A State technical scholarship of the value of £150 a year, confined to statutory Indians, is awarded by the Industries Department, to which the supervision and control of all technical and industrial institutions, except that of the Bengal Engineering College and Ashanulla School of Engineering, Dacca, have been transferred.

Commercial Schools.

830. Besides three permanent evening classes in shorthand, typewriting, and book-keeping, evening classes in accountancy and auditing, which prepare students for the Government of Bombay diploma, have been opened in the Government Commercial Institute, Calcutta. In the day classes the course lasts for two years and includes English, commercial geography, arithmetic, and book-keeping, with typewriting and shorthand as optional subjects. Students, who complete the Government Commercial Institute course, are eligible for admission to the lower division of the Secretariat and attached offices, and for employment in mercantile firms. There is a system in force in virtue of which, students who have completed a commercial

course in some of the minor commercial schools are admitted to the examinations conducted by the Commercial Institute, Calcutta. There are 19 aided and 18 unaided commercial schools in various parts of the Presidency.

Industrial Schools.

831. The Government Weaving Institute at Serampore offers two courses. The higher course, which extends to three years and includes drawing, designing, and dyeing besides weaving, is taken mainly by students who are matriculates of Calcutta University who become weaving instructors or find suitable employment in manufacturing concerns. The lower course, both at Serampore and at half-a-dozen minor schools scattered over the Presidency, is attended almost exclusively by practical weavers who are desirous of improving their technical knowledge. In order to reach the weavers in outlying parts of the Presidency, six peripatetic instructors are employed, each of whom is assisted by an artisan weaver. A system of Government loans has recently been introduced for helping passed pupils of the Weaving Institute to purchase improved looms on the completion of their course. The loans are repaid with fair regularity.

The Sericultural school at Rajshahi is a Government institution.

The Kalimpong Industrial Schools teach tailoring, gardening, and other technical subjects. The schools are in receipt of a Government grant.

Schools of Arts.

832. The Calcutta School of Arts has the following departments:—(*a*) elementary, (*b*) industrial, (*c*) drawing, (*d*) painting, and (*e*) teaching. Students from all parts of India attend the school and passed students generally secure suitable employment. The Government Art Gallery is attached to the school.

The Maheswarpasa Art School, Khulna, teaches drawing, modelling, and painting.

There are two music schools, both in the Burdwan Division.

Education at mining centres.

833. Part-time classes at three centres are conducted by well-qualified lecturers. The course extends over two years. The teaching is conducted in English and the classes are attended by young men of fair education, both European and Indian, employed in coal mines. An examination is held at the end of the course and certificates are issued by the Mining Education Avisory Board.

Local classes conducted in Bengali are held at three centres in Bengal and are attended by men of slight education employed in coal-fields.

Night and continuation schools.

834. Night schools are ordinary primary schools held after school hours for the convenience of day-labourers who are unable to attend day schools on account of their avocations. Continuation schools are chiefly intended for those people who have passed the primary school stage and are anxious to increase their knowledge; these schools are not necessarily held after school hours—they may be held in the early morning. Night schools are generally conducted by the teachers of neighbouring *pathsalas*. The aims of these schools are not very ambitious. The continuation schools are of two groups. Group I are practically lower primary schools teaching the 3 R's in their spare hours to boys who are working. Group II schools attempt to impart some rudimentary technical or professional instruction.

In 1921-22 continuation schools numbered 108 with 3,197 pupils. Group I schools are growing in popularity, but Group II have proved more or less a failure. Of Group II schools, four, viz., the Commercial College, the Central School, the Huson Chambers, and the Krishna Behari Institute in Calcutta, teach typewriting, shorthand, book-keeping, etc.

Collegiate education.

835. Of the Arts colleges in Bengal, eight (including one for women) are maintained by Government, and the rest are managed by private individuals or associations. Thirteen private colleges are in receipt of aid from Government, and 14 depend entirely on their own resources. Midnapore College is the only college maintained by a municipality. Each college has a suitably constituted governing body on which local interests, the staff, and guardians of students are represented. The governing bodies of certain colleges like the Presidency and the Bengal Engineering College enjoy large powers, while in other cases their functions are of advisory nature.

Colleges desiring affiliation to the University are required to fulfil certain conditions. In accordance with certain changes made in the regulations of the University of Calcutta, all post-graduate teaching in Arts and Science has passed under the control of the University. Twenty-four colleges are affiliated to the B.A. degree, 13 to the B.Sc., 36 to the I.A., and 21 to the I.Sc. standard, 4 in teaching, 3 in Law (including the Law Department of Dacca University), 2 in Medicine, and 1 in Engineering. College authorities are responsible for the moral, physical, and intellectual advancement of the students committed to their charge. In almost all cases hostel accommodation has been increased; a considerable proportion of college students reside under the supervision of a hostel superintendent, who is invariably a member of the staff. Extensive medical surveys have been carried out which are intended to serve as a basis for more strenuous efforts for their physical well-being. There is an annual provision of Rs. 1,29,000 for the improvement of private colleges in Bengal. The grant is distributed on the basis of the recommendations of the Calcutta University Inspectors and is mainly devoted to the improvement of laboratories and libraries.

The future of Arts colleges in Bengal is uncertain in view of the recommendations of the Calcutta University Commission, which were published early in 1919. Discipline among college students has suffered much, during the last two years, owing to the non-co-operation and *Khilafat* agitation. Great dissatisfaction exists with the present system of education which is largely literary, and is now no longer a certain guarantee of employment.

Hostels.

836. Under the regulations of Calcutta University every student reading in an affiliated college who does not reside with parents or other legal guardian or guardians approved by the Principal of the college is required to reside either in the college hostel or in lodgings approved by the college. This condition is not strictly complied with in all cases. The question of hostel accommodation for college students is more acute in Calcutta than in the mufassal, owing chiefly to the enormous rise in the prices of land. Since 1915 Government have allotted about Rs. 13½ lakhs for the construction of undergraduates' hostels in Calcutta., Hostel accommodation has been also provided in rented premises for students belonging to the depressed classes at Calcutta and Dacca. But the problem remains unsolved. The amenities of Calcutta and the restricted affiliation granted to mufassal colleges are the chief considerations which send so many students to the city from all parts of Bengal. Several important projects involving the construction of new hostels have been postponed owing to financial difficulties created by the war. Two additional hostels for students of the Rajshahi College are in course of construction and will be completed shortly. A recurring grant of Rs. 1,32,000 is allotted annually by Government for the superintendence of hostels attached to Government and private schools and colleges. Each collegiate hostel obtains from the Calcutta University Syndicate annually a certificate of recognition and is subject to inspection by the University Inspector of Colleges. All matters relating to non-collegiate hostels, messes, and private lodgings are dealt with by the Students' Residence Committee of the University. Students' messes in the town of Dacca are under the control of a local Students' Residence Committee.

Calcutta University.

837. Owing to the establishment of new Universities at Patna, Rangoon, and Dacca, the territorial jurisdiction of the University of Calcutta has been restricted to the Bengal Presidency (excluding the town of Dacca) and Assam, while the sphere of its work has been extended by including in it, teaching functions which did not exist previously. Post-graduates classes in Arts and Science have been opened on the recommendation of the committee appointed by the Government of India in 1916. The government of the University vests in the Senate, which consists of the Chancellor, the Vice-Chancellor, and the Fellows—*ex-officio*—elected and nominated.

The Faculties consist of Arts, Science, Law, Medicine, and Engineering. The Calcutta University Commission discovered serious defects in the present system of University education and have recommended fundamental changes in organization, control and curricula. Only partial effect has been given to the recommendations of the Commission in the matter of reconstitution.

By Act VII of 1921 of the Indian Legislature the Governor of Bengal has become Chancellor of the University of Calcutta, and the Government of Bengal has been empowered to nominate the Vice-Chancellor and, in general, the local Government possesses the powers previously exercised by the Governor-General in Council. By the Dacca University Act, the schools and colleges within the area of Dacca University have lost connection with Calcutta University. A Board of Secondary and Intermediate Education has been formed at Dacca which exercises in the Dacca University area the same sort of control over education up to the intermediate examination as is exercised by Calcutta University within its jurisdiction.

Dacca University.

838. The residential University at Dacca came into being on 1st July 1921. The degree classes of the Dacca and Jagannath Colleges have been absorbed in Dacca University; and both the colleges have assumed the status of intermediate colleges, subject to the control of the Board of Intermediate and Secondary Education, Dacca, which prescribes courses of studies and conducts its own examinations. The jurisdiction of Dacca University is limited to the town of Dacca. The Governor of Bengal is Chancellor of the University. A whole-time Vice-Chancellor, who is the academic and executive head of the University, has been appointed. The supreme body in the University is the Court, consisting of *ex-officio*, elected and nominated, members, at present 158 in number. The Chancellor is required, in nominating members, to ensure that so far as possible half the non-European members shall be Muhammadans. The chief executive body is called the Executive Council, which consists of 15 members. The chief academic body is the Academic Council, consisting of 19 members. There are three faculties—Arts, Science, and Law.

Affiliation to foreign Universities.

839. The University of Calcutta is affiliated to the Universities of Oxford, Cambridge, Dublin, Edinburgh, and Liverpool. In virtue of this affiliation, students on production of satisfactory evidence that they have passed certain prescribed tests of the University of Calcutta or have studied up to certain standards, are entitled to suitable status and privileges on their admission to the Universities mentioned above. The privileges include reduction in the prescribed period of residence or exemption from the necessity of passing certain examinations or parts thereof.

Functions of the Universities.

840. The chief functions of the University of Calcutta are to affiliate colleges and recognize high schools, to prescribe syllabuses of studies, to hold examinations, and to grant certificates, degrees, and diplomas to successful candidates. The University of Calcutta exercises both examining and teaching functions, and is empowered to appoint Boards of Studies and Examiners, University Professors, Readers, and Lecturers in various subjects, and to maintain University libraries and laboratories and to do all acts which tend to promote study and research. A whole-time officer, called the Controller of Examinations, has been appointed to conduct the various University examinations. Elaborate arrangements have been made for the delivery of lectures in English, Sanskrit, Pali, Arabic and Persian, Indian Vernaculars, Comparative Philology, Mental and Moral Philosophy, Experimental Psychology, History, Anthropology, Political Economy and Political Philosophy, Commerce, Mathematics (pure and applied), Physics, Chemistry, Botany, Physiology, Geology, Zoology, and Law.

Inspection of colleges.

841. For the inspection of affiliated colleges the University is empowered to appoint, subject to the approval of Government, a whole-time Inspector of high academic standing with some experience of Indian colleges. The appointment is ordinarily made for a term of five years.

Inspection of high schools.

842. The inspection of recognized high schools is generally carried out by departmental officers on behalf of the University. The number of high schools recognized by Calcutta University is 912, of which 45 are managed by Government. Each recognized school is required as a condition of continued recognition to have on its staff not less than three graduates and not more than two matriculates. Other conditions include the payment of staff on a prescribed scale, that sufficient accommodation and equipment should be provided, that school libraries should be maintained, and that arrangements for physical exercise should be made. The regulations also provide

for the supply of pure drinking water and for the observance of all those conditions which make for health and strength. The grant or refusal of the privileges of affiliation or recognition constitutes the basis of the disciplinary power exercised by the University of Calcutta. The Calcutta University Commission recommended important changes concerning the curricula, organization, and control of the University. Briefly the recommendations are—

(1) the separation of intermediate courses from the University curriculum;
(2) the constitution of a new authority to control secondary and intermediate education; and
(3) the establishment of a system of secondary and intermediate institutions, some of which are to contain high school classes.

A Board of Secondary and Intermediate Education has been established at Dacca, a step automatically made necessary by the changes in territorial jurisdiction consequent on the passing of the Dacca University Act. Government is at present considering legislation for the constitution of a similar body for the rest of Bengal. Dacca University has made elaborate arrangements for the residence and tutorial supervision of students in connection with the Dacca, Jagannath, and Muslim Halls.

Provision has been made by Dacca University for teaching English, Arabic and Islamic studies, Persian and Urdu, Sanskrit and Sanskritic studies, Philosophy, History, Economics, Politics and Commerce, Physics, Chemistry, Education, Law, and Mathematics.

Moderators and Examiners.

843. Examiners are selected by the University of Calcutta in consultation with the heads of affiliated colleges. A Board of Examiners is appointed on the recommendations of the Board of Studies. For the Matriculation examination or the Intermediate examination in Arts and Science the Syndicate is empowered to appoint five syndics as moderators, of whom three are required to be members of the Faculty of Science. A Board of Examiners consists of two or more persons who set papers in each examination. For the Law, Medical, and Engineering examinations the Dean of the Faculty of Law, Medicine, or Engineering for the time being is *ex-officio* President of the examiners appointed.

Degrees in Arts and Science.

844. Candidates desirous of obtaining a degree are required to pass the Matriculation examination in English, Mathematics, a classical language, and vernacular composition, besides two additional subjects. After two years of study a matriculate passes the intermediate examination in Arts or Science, and after a further two years' work becomes eligible to appear for the degree examination. Vernacular composition is a compulsory subject in Matriculation, I.A., I.Sc., and B.A. examinations. Candidates are allowed to take an Honours course in one subject only. Practical tests are held in Science subjects at the laboratories of the University Science College. For the M.A. examination a candidate may select one out of the 20 subjects prescribed, and for the M.Sc. one out of eight prescribed courses. Graduates may appear at the M.A. and M.Sc. examinations after two years' further study. Non-collegiate candidates may appear at the M.A. and M.Sc. examinations in certain subjects after three years from the date on which they obtained their degree. M.A.s or M.Sc.s placed in the first and second classes may appear as candidates for the degree of Doctor in Philosophy or Science three years after they have passed the M.A. or M.Sc. examination. The degree of Ph.D. or D.Sc. is obtainable by production of an approved thesis.

Teaching Law, Medical, and Engineering degrees.

845. After two years from the date of passing the intermediate examination in Arts or Science a candidate may be admitted to the Licentiate in Teaching exmination held annually in Calcutta. A candidate who has passed the B.A. or B.Sc. examination may appear after a year of further study at the B.T. examination. Any B.A. or B.Sc. may present himself for the preliminary examination in Law at the end of first year of Law study, at the intermediate examination at the end of the second, and at the final examination for the degree in Law after the third year of study. Any candidate who has obtained the degree of B.L. may be examined for the degree of M.L. After one year an M.L. may present himself for the degree of D.L.

In Medicine, a matriculate after one year's study may appear at the preliminary scientific examination; after a further two years' study at a college of Medicine affiliated to the University of Calcutta he may appear at the first M.B. examination. Subsequently to the passing of the first M.B. examination a candidate may appear after three years' study at the final examination for the degree of Medicine. The final examination is divided into two parts—part I embraces major subjects, such as Medicine, Midwifery, Surgery including Ophthalmology, and Gynæcology; part II comprises General Pathology, Medical Jurisprudence, and Hygiene. A Bachelor of Medicine may be admitted to the examination for the Doctor of Medicine or Master of Surgery, if subsequent to the passing of the M.B. examination he has completed either three years' continuous practice of the medical profession or two years of hospital practice. A Bachelor of Medicine or Licentiate in Medicine and Surgery may be admitted to the examination for the diploma in Public Health, on fulfilling certain conditions as regards hospital practice, laboratory work, and knowledge of sanitation.

In Engineering two examinations are held—(1) the intermediate examination in Engineering, at which a candidate may present himself after two years' study in an Engineering College; and (2) the B.E. examination, at which a candidate may present himself two years after passing the I.E. examination. A B.E. may obtain the D.Sc. degree in Engineering by thesis. Examinations are held in three branches—Civil, Electircal and Mechanical, and Mining.

In Dacca University (1) the ordinary B.A. or B.Sc. degree may be obtained by candidates who have passed the intermediate examination in Arts or Science after two years' study, (2) B.A. and B.Sc. with Honours may be obtained after three years of study, (3) candidates mentioned in clause (2) may obtain M.A. or M.Sc. degree after one year's study. But those mentioned in group (1) or graduates of other approved Universities may obtain it after two years' study.

The Ph.D. or D.Sc. degree may be conferred on M.As. or M.Scs. of not less than three years' standing and on B.As. or B.Scs. of four years' standing on the approval of their research work. Graduates of other Universities must pursue research for two years in Dacca University before presenting their dissertation.

The L.T. diploma may be obtained by candidates who have passed the intermediate examination in Arts or Science after one year's study, and the B.T. may be obtained by B.As. or B.Scs. after one year's study. The M.T. degree is obtainable after three years' study.

The B.L. degree may be obtained after three years' study by B.As. and B.Scs. Candidates who have taken the B.A. degree with Honours in the University of Dacca may take the second and third year courses in one year. The degree of M.L. may be obtained by B.Ls. after three years' study. The D.L. degree may be taken by an M.L. of not less than three years' standing on the approval of his work. Candidates other than M.Ls. must pursue their research for two years in the University before presenting themselves for the degree of D.L.

Post-graduate studies.

846. All post-graduate teaching has now passed under the management of the University and is under the control of the Council of Post-graduate Teaching in Arts and Science. In 1921 there were 1,234 students in the Post-graduate Department of the Calcutta University, the staff consisting of 233 Professors, Assistant Professors, and Lecturers, including part-time teachers. The increase of staff is largely due to the increase of Science teaching. The post-graduate classes which aim at a standard corresponding to Honours degree work in England admit ordinary and Honours students. The increasing activities of the Post-graduate Department have been rendered possible to some extent by liberal endowments.

Endowments.

847. The University College of Science has been founded out of the gifts of Rs. 14 and Rs. 10 lakhs made by the late Sir Tarak Nath Palit and Sir Rash Behari Ghosh. There has been a further gift of the capital value of some Rs. 5½ lakhs by the late Kumar Guru Prasad Singha of Khaira, out

of the interest of which the University has established five new chairs in Indian Fine Arts, Phonetics, Physics, Chemistry, and Agriculture, the occupants of which take part in the general post-graduate work of the University. Another gift of Rs. 2½ lakhs under the will of the late Sir Rash Behari Ghosh established a number of travelling research fellowships open to graduates of the Calcutta University. A further interesting development of University work has been started by the beneficence of Mr. Pran Krishna Chatterjee, who in 1921 gave 100 bighas of land and an endowment of Rs. 1,800 per annum for the establishment of a University Mining School which, when organized, will train students for the mining course, leading to the B.E. degree of the University. The number of scholarships, medals, and prizes which are awarded on the results of the various examinations has increased largely. Scholarships are also offered to students for study outside India; Dacca University awards 11 post-graduate scholarships, besides numerous stipends and prizes.

Buildings.

848. The building on the land to the south of the Durbhanga Library building (measuring about a bigha and a half) cost the University over Rs. 4 lakhs, of which Rs. 3 lakhs has been met out of Government grants and the remainder out of the reserve fund of the University. This building provides hostel accommodation for 150 Hindu students of the University Law College and is known as the University Law College Hardinge Hindu Hostel. It is under the direct superintendence of the Principal, University Law College. The fish market site, measuring about 3 bighas, known as Madhab Babu's Bazar, situated to the south of the Senate House, was acquired out of the Government grant of Rs. 8 lakhs. It is proposed to construct examination halls and lecture rooms on this site.

The biological laboratories have been equipped in the buildings at No. 35, Ballygunge Circular Road, which was the residence of the late Sir Tarak Nath Palit.

Dacca University is particularly fortunate in situation. It occupies the buildings which formerly housed the Government of Eastern Bengal and Assam. Government House contains the court-house and residences for members of the staff. The old Dacca College has been turned into physical laboratories and the Curzon Hall has become the meeting-place of Convocation. The Dacca College Hostel and the buildings intended for the hostels of Jagannath College are now the Dacca and Jagannath Halls; pending the erection of a new building, the Moslem Hall occupies part of the old Secretariat. Dacca College and the Dacca Law College have furnished the nucleus of the main University Library.

Education.

[Progress of Education in Bengal, 1917-18 to 1921-22. Sixth Quinquennial Review.]

Administration.

849. The members of the Subordinate and the Lower Subordinate Educational Serices were re-grouped into four main classes according to the nature of their work, *viz.*, teaching, inspecting, ministerial and miscellaneous and were placed on a time-scale of pay. Nineteen lecturers and 14 district deputy inspectors were promoted to the Bengal Educational Service.

Educational institutions and expenditure.

850. During the year 1921-22 the total number of educational institutions, both public and private, declined from 53,968 to 53,767 or by 201 and the pupils from 19,45,145 to 18,90,454 or by 54,691 a result which is almost entirely attributable to the non-co-operation movement.

The total expenditure, however, rose by 24½ lakhs and aggregated 333¾ lakhs of which 135½ lakhs were granted from provincial revenues, 16½ lakhs were contributed by local bodies, 128¼ lakhs were realised from fees, and 53½ lakhs were obtained from private sources such as endowments, subscriptions and other sources.

Collegiate education.

851. As in the previous year the number of Arts Colleges for Indian male students was 33, of which 7 were maintained by Government, 1 was

under Municipal management, and 25 were private institutions. The number of students was 16,741 as compared with 19,576 in 1920-21, and 21,380 in 1919-20, the progressive decrease being explained by the wholesale withdrawal of students which followed the incessant endeavours of agitators to bring about the boycott of all institutions which, whether Government aided or not, are associated with that system of education which leads to a university degree. The Government colleges suffered considerably less than did the private colleges. The expenditure on collegiate education fell by Rs. 11,987 to 25½ lakhs of which 9¾ lakhs were derived from provincial revenues. On the establishment of the Dacca University in July 1921, the Dacca and Jagannath Colleges were reduced to the status of Intermediate Colleges and the Degree classes in both colleges were absorbed in the University.

Secondary education.

852. During the year the number of secondary schools for Indian boys decreased by 63 and of pupils by 31,988. Although the number of high schools rose by 4 the number of middle schools declined by 67 (44 middle English and 23 middle vernacular). The decrease in the former is due partly to the non-co-operation movement, partly to economic causes and, in part, to a growing distrust of the utility of the education imparted in these schools. The 23 middle vernacular schools disappeared as there was no demand for purely vernacular education. The pay and prospects of teachers of the Subordinate and Lower Subordinate Services, employed in secondary schools managed by Government were improved as effect was given to the recommendations of the Subordinate Educational Services Reorganisation Committee, and a timescale of pay was introduced in lieu of the graded system. On the other hand there has been no improvement in the position of teachers employed in privately-managed institutions which are financially weak, and poor in accommodation and equipment. In the area which is under the control of Dacca University the direction of intermediate and secondary education has been assumed by the newly-created Board of Secondary Education.

Vocational education supplemented by literary education is in great demand. Weaving, carpentry, smithing, etc., are taught in the manual training classes attached to some secondary schools. Schools have been given the option of introducing spinning and weaving provided proper arrangements are made for the teaching of those subjects.

Primary education.

853. During the year primary schools for Indian boys decreased by 80 and pupils by 16,499. It appears that the decline is due almost wholly to post-war economic distress. The number of Hindu pupils increased by ·3 per cent., while that of Muhammadan pupils decreased by 2·7 per cent. The total expenditure on these schools amounted to nearly 44¾ lakhs of which nearly 22 lakhs were met from public funds and the rest from fees and other sources.

The average pay of a primary school teacher is often below that of a day-labourer, and little improvement in primary education can be expected until the teachers are more liberally paid and the schools are better organised.

Training of male teachers for Indian schools

854. At the end of the year 1921-22 there were 110 institutions for the training of male teachers for Indian schools, *viz.*, 2 colleges, 6 normal schools and 102 *guru, muallim* and special training schools. The two training colleges maintained by Government at Calcutta and Dacca, prepare students for the B.T. and L.T. examinations of the Calcutta University. During the year 73 students passed the B.T. and 26 students the L.T. examination from these colleges. From the training schools for vernacular teachers 215 came out successful and 1,366 from *guru* and *muallim* training schools.

Professional and technical education.

855. The number of institutions for the study of Law decreased from 8 to 3 and of pupils from 2,502 to 2,439. The institutions for the study of Law now are—the Calcutta University Law College, and the Law departments of the Dacca University and the Ripon College. The Law Departments attached to other Arts Colleges have ceased to exist. Of 1,284 pupils who appeared at the B.L. final Examination, 504 were successful.

With the exception of the Bengal Engineering College and the Ahsanullah School of Engineering at Dacca, all other technical and industrial institutions are under the control of the Industries Department. The Bengal Engineering College is divided into three departments, viz—(1) Civil Engineering consisting of a four years' course at the College followed by one year's practical training; (2) Mechanical, Electrical and Mining classes consisting of a three years' course in the subjects followed by one year's practical training; and (3) the Industrial (formerly called Artisan) classes.

In the Bengal Engineering College the system of appointing practising engineers as visiting teachers on subjects such as water supply, drainage, irrigation and structural engineering has met with considerable success.

The Ahsanullah School of Engineering at Dacca has been divided into the following departments, *viz.*—(1) Upper Subordinate, (*ii*) Lower Subordinate, and (*iii*)Artisan. The school is very popular and applications for admission have been so numerous that it has been decided to duplicate all the three classes with effect from the beginning of the session in 1923. The school has since its removal to the buildings occupied by the Secretariat Press severed all connection with the Dacca College. The Head Master has been styled Principal and an Assistant Principal has been appointed. There were "B" Classes attached to the Dacca and the Rajshahi Collegiate schools and the Zilla schools at Rangpur, Pabna and Khulna having 108 pupils on the rolls. Of 47 candidates appearing for the School Final Examination, Science side, 18 passed in 1921-22.

The number of technical and industrial schools in 1921-22 was 86 with 3,631 pupils.

Education of Indian girls and women.

856. Progress in female education has been steady and continuous despite adverse circumstances. Indian public opinion is slowly changing from its former attitude of positive dislike and is progressing from apathy to enthusiasm and co-operation. The institutions for Indian girls increased from 12,199 to 12,280, but the number of pupils declined from 3,40,536 to 3,33,870. This is a temporary setback for which economic causes are responsible.

On 31st March 1922 there were 58 zenana teachers with 1,333 pupils in zenana classes. The system has made very little progress. The method of house-to-house visitation is not conducive to economy of effort nor is the amount of expenditure commensurate with the amount of progress made by the pupils. The standard reached by these is very low as few of the teachers can teach beyond the lower primary standard. Zenana education must be a temporary makeshift till such time as, with the spread of primary education in Bengal, every girl will have the chance of receiving primary education before her marriage. There were 13 institutions for the training of Indian girls with 213 pupils, including the Diocesan College which prepares candidates for the B.T. and L.T. examinations. The demand for trained teachers is far greater than the supply.

Education of Europeans.

857. The number of institutions rose from 81 to 87 and of pupils from 9,883 to 10,702. Examination procedure has been modified by the Cambridge Syndicate consenting to include in its curricula languages, classical and vernacular, of the country. In Bengal, Bengali. Hindi or Urdu is usually chosen. A conference was held in February 1922 to discuss the effects of the Syndicate's decision and, as a result, European Schools were graded as (*a*) Higher Secondary, preparing pupils for the Senior Certificate and the Higher School Certificate, and (*b*) Secondary, preparing pupils for the Senior Certificate.

Muhammadan education.

858. The total number of Muhammadan pupils in all types of institutions for Indians decreased by 45,470. The decrease was shared mostly by high, middle, and special schools. There was a decrease of 7 madrassahs with 2,698 pupils, due chiefly to economic distress.

The Hooghly Madrassah was removed from the control of the Principal, Hooghly College, and was placed on an independent footing under the control of the Superintendent.

Literature and the Press.

Bengal Library and working of Act XXV of 1867.

859. The total number of publications registered during the year was 4,229, of which 2,924 were books and 1,305 issues of periodicals. Of the former, 2,708 were original publications and 216 republications or translations. The issues of periodicals represented 179 separate publications of periodicals, of which 51 were in English, 91 in Bengali and the remainder in other languages. There were 27 cases of evasion of the law of book registration (Act XXV of 1867).

Literary Publications.

860. The year 1921 was one of unusual literary activity and the number of publications received for registration was the highest on record since the constitution of the Presidency in 1912. The increase was in large measure due to the non-co-operation movement so that the development can hardly be regarded as normal or on the whole healthy.

Drama continued decadent, thanks to the popular demand for crude and sensational romanticism, but a noteworthy exception was Rabindranath Tagore's "Rin-Sodh" (the payment of debts), a short dramatic piece on the mystic influence of early Autumn.

Fiction continued to flourish though more in numbers than in quality and no work of outstanding merit appeared.

Among historical works, three published by the Calcutta University deserve mention, viz.,—

(1) Rigvedic India, Vol. I, by Abinash Chandra Das, M.A., B.L.;
(2) Evolution of Indian Politics by R. Shama Sastri; and
(3) Lectures on Ancient Indian Numismatics by Dr. D. R. Bhandarkar.

The year saw no contribution of value in the domain of poetry although the non-co-operation movement inspired an abundant crop of ephemeral political pamphlets in verse.

There were further instances of awakening of interest in art. In the sphere of industrial literature a multiplicity of publications appeared on the allied crafts of spinning and weaving, largely inspired by the cult of the *charka*.

The Indian Press Act, 1910.

861. Hostility to the Press Act continued and the demand for its entire abolition on the plea that it was applied only against Indians. During the year, 3 books, 2 magazines, 4 pamphlets, 10 leaflets and 1 picture were forfeited. Security was demanded from 5 papers and 8 printing presses of which 2 papers and 5 presses deposited the sums required.

Warnings under the Act were issued to (1) The Banik Press; (2) The Nava Yuga Press; and (3) The Bijali Press.

The following newspapers were prosecuted under sections 124A, 153A and 505, Indian Penal Code:—(1) *Asr-i-Jadid;* (2) *Muhammadi;* (3) *Ehrar;* and (4) *Amrita Bazar Patrika.*

Convictions were obtained in the first two cases, while the cases against the latter two were withdrawn on apologies being tendered in court.

The Press.

862. The total number of newspapers and periodicals, both English and vernacular, printed and published during the year was 442. Of these, 295 were published in the town of Calcutta, 223 were in Bengali, 137 in English and the others in Hindi, Assamese and other languages.

Seventy-two new periodicals and newspapers were started, two old papers were revived and sixteen ceased to exist.

Topics discussed in the Press.

The newspaper press concerned itself as usual mainly with political issues, non-co-operation forming by far the most important subject of discussion and overshadowing all other topics. On the theory and dogmas of the movements there was unanimity, but there appeared to be some uncertainty

as to the ultimate object of the agitation and the length of time the movement could remain non-violent, and there was wide division of opinion as to the adoption of civil disobedience (which in various degrees the Central Congress organization sanctioned from time to time). Ultimately, however, the whole extremist press fell into line with the Working Committee and the All-India Congress Committee in their successive decisions for the progressive adoption of civil disobedience.

Towards the close of the year Government's increased activity in checking the growing campaign of resistance to the law and the declaration of several volunteer organizations as unlawful under the Criminal Law Amendment Act called forth a storm of exacerbated criticism.

Interest in the working of the Reforms Scheme continued to be manifested although to a minor extent. Such general opinion about the Reforms as finds expression in the press, always unfavourable, has undergone no revision and no opportunity was missed by the extremist papers to assert their failure in operation. Emphasis was laid on the additional expenditure involved in the scheme and the absence of any appreciable benefit therefrom to the country. The appointment of Ministers was adversely commented upon and Lord Ronaldshay in making the appointments was accused of having disregarded public opinion and the recommendations of the Joint Committee.

The agitation against foreign piece-goods received strong support from the extremist press especially towards the approach of the Pujas.

The Turkish question and the Khilafat grievances continued to hold a prominent place in the attention of Muhammadan journals and afforded matter for much bitter writing. The British Government, led by a Turcophobe Prime Minister, was accused of deliberately standing in the way of revision of the Treaty of Sevres.

Government's attitude towards the exodus of coolies from Chandpur was condemned by all sections of the press and there was an insistent demand for an independent inquiry into the whole incident, the report of Sir Henry Wheeler being generally discounted.

Law suits between Indians and Europeans were followed with close interest and in several instances were made the ground for allegations of racial prejudice.

The police received a generous share of hostile criticism, particularly in the closing months of the year when complaints were directed chiefly against the European members of the force, the military, and the members of the civil guard.

In the domain of economics the old grievance was ventilated that the resources of the country were being exploited for the benefit of the foreigner.

Labour problems continued to attract sympathetic attention. A considerable amount of adverse criticism, however, was directed against the promoters of the Assam-Bengal Railway strike.

The announcement of the visit of His Royal Highness the Prince of Wales evoked varied comments. The vernacular press deprecated the visit as inopportune, the functions and ceremonies connected therewith received perfunctory and meagre treatment and much capital was made of the alleged "peaceful" *hartal* of the 17th November.

Scientific and Literary Societies in Bengal.

863. The number of such societies in Bengal in the year 1921-22 was 142. They are for the most part public libraries, intended for the development of culture and the promotion of the knowledge of literature.

864. There are 55 such societies in the Presidency division of which 40 belong to the city of Calcutta. The most prominent and influential is the Asiatic Society of Bengal founded in 1784 by Sir William Jones. The Society is well known in scientific circles throughout Europe and has done most

Presidency Division.

important work during the 139 years of its existence. Its objects are best described in the language of the founder. " The bounds of its investigations will be the geographical limits of Asia and within those limits its enquiries will be extended to whatever is performed by man or produced by nature. It will flourish if naturalists, chemists, antiquarians, philologists and men of science in different parts of Asia will commit their observations to writing and send them to the Asiatic Society at Calcutta. It will languish if such communications shall be long intermitted; and it will die away if they shall entirely cease."

Other societies worthy of mention are:—

(1) The Agri-Horticultural Society of India founded in 1820 by the famous Baptist Missionary of Serampore—Dr. Carey.

(2) The Bangiya Sahitya Parishad founded in 1894 for the promotion of literary, scientific and educational work. Government subscribes a large amount annually for the periodicals issued by the society.

(3) The Indian Association for the Cultivation of Science founded in 1876 by Dr. Sarkar for the advancement of original scientific research.

(4) The Calcutta University Institute founded in 1891 for the moral, mental and physical improvement of young men in Bengal, and especially college students. The Institute is now housed in a splendid building in College Square constructed in 1915-16 at a cost of Rs. 350,000. The Maharajadhiraja of Burdwan and others have generously contributed to the furniture fund.

(5) The Association for the Advancement of Scientific and Industrial Education of Indians established in 1904, which provides scholarships for young men desirous of acquiring technical education abroad, particularly in Japan and America.

(6) The Young Men's Christian Association founded in 1903 with the object of supplementing the work of schools, and of realizing among students the ideal of *mens sana in corpore sano*.

(7) The Ram Mohon Library and Free Reading Room founded in 1905 for the promotion of intellectual and moral culture.

Burdwan. Division.

865. The following are the most important Societies in the division :—

(1) The Hitakari Sabha at Uttarpara founded for the furtherance of female education by the award of scholarships to successful girls on the results of the examination held under its patronage.

(2) The Bolpur Santiniketan Brahmacharya Asram Library founded by Dr. Rabindra Nath Tagore for the advancement of learning and the extension of knowledge.

(3) The Uttarpara Public Library founded in 1859 by Joy Kissen Mukerjee with the object of disseminating the benefits of Western and Eastern culture among all sections of the community. The institution is free, maintained from the income of the property endowed by the founder, and is managed by a body of curators.

The following public libraries also deserve mention:—(1) The Burdwan Raj Public Library, (2) The Midnapore Public Library, (3) The Duke Library, Howrah, and (4) The East Indian Railway Institute at Asansol.

Dacca Division.

866. Twenty-nine societies are reported to exist in the Dacca division. The East Bengal Saraswat Samaj promotes Sanskrit learning in this and in other divisions. The Faridpur Suhrid Sabha furthers the spread of female education in the district while the Sahitya Parishads at Dacca and Faridpur are identified with the development of literary culture. The Mymensingh Moslem Students' Association, the Anjuman Hemait Islam, Barisal, and the Faridpur District Moslem Association are concerned chiefly with the interests political, educational and religious, of the Muhammadan community, but the first two also assist deserving Muhammadan students in meeting the expenses of their education. The Bakarganj Muhammadan Educational Society

founded in 1890, devotes itself to the spread of English education among the Muhammadan community. The Northbrook Hall Library and the Ram Mohan Library at Dacca and the Madaripur Public Library are well equipped and popular institutions.

867. All the societies in the Rajshahi division which can be called literary are public libraries. They are ten in number. **Rajshahi division.**

868. There are only six public libraries of any importance in this division, of which the Buckland-ghat Public Library and Reading Room started at Chittagong in 1904, the Cox's Bazar Public Library established in 1906, the Noakhali Town Hall Library and the Birchandra Public Library founded at Comilla in 1885, deserve mention. There are a few societies of a social nature, such as the K. C. De Institute at Chittagong opened with the intention of establishing a centre of social intercourse for non-gazetted officers of the district. **Chittagong division.**

Arts and Sciences.

869. The number of students on the rolls on 31st December 1921 was 252 against 246 in the previous year, of whom 40 were in the Industrial department and 33 in the Draughtsman department. Nearly all were Hindus, only 13 being Muhammadans and two Anglo-Indians. An important commission undertaken by the staff and students was the decoration of the route from Government House to the Victoria Memorial when the latter was opened by His Royal Highness the Prince of Wales. During the year 22 students obtained employment, some in such distant places as Lucknow, Patna, Benares, and Allahabad. The total direct expenditure on the school was Rs. 50,360. There were 38 boarders in the hostel attached to the school. **Government School of Art, Calcutta.**

870. Various collections of art objects submitted by art dealers and others were inspected and from those a number of examples of metalware, ivory carving, and pottery were selected and purchased for the gallery with the approval of the Trustees of the Indian Museum. Four small Tibetan painted tablets acquired from the Tibet Mission were transferred under the orders of the Trustees of the Indian Museum from the Ethnology Gallery to the Art Gallery. A series of 30 South Indian bronze figures was acquired from the Madras Government Museum in exchange for a typical collection of 15 Tibetan and Nepalese metalware from the Art Gallery. The total direct expenditure during the year was Rs. 9,350. **Government Art Gallery.**

871. There were three other schools of art including the Indian Art School, Calcutta. Grants were given to two of these institutions amounting to Rs. 3,000 during the year. **Other Schools of Art.**

872. Courses of lectures in the coal-fields were given at three centres, viz., Raniganj, Deshargar, and Jamuria, the number of students enrolled being respectively 71, 77, and 19. The attendance was considerably affected by local strikes. These courses were undertaken by three part-time lecturers, one for each centre. In addition to these lectures, which were conducted in English, elementary vernacular lectures were held at three centres, viz., Topsi, Kalipahari, and Mugma; the attendance was good. A manual of mine surveying specially written by Professor E. H. Roberton and translated into Bengali by his assistant has been published. A manual of coal mining is under preparation. Government have sanctioned the appointment of a whole-time lecturer and an assistant lecturer for the Bengal centres for the next year. The lecture halls at Raniganj and Sitarampur and the other necessary buildings required for the introduction of the improved scheme are now in course of construction. **Mining education.**

873. Of the 33 candidates who appeared at the Overseer Examination in the Civil Engineering Branch 27 were successful. In the Mechanical and Electrical Branch 24 candidates presented themselves for examination of whom 21 passed. In the Upper Subordinate (Part A) Examination in the new course 48 candidates were successful out of 61 who appeared. The Upper Subordinate Examination (Part B) in the new course was held this year for the first time. Out of 18 appearing 14 were successful. In the **Joint Technical Examination Board.**

Lower Subordinate Examination 49 candidates passed out of 84 appearing. The examination fees collected from the candidates amounted to Rs. 6,260. The total expenditure amounted to Rs. 7,556. The figures shown in this paragraph include those for Bihar and Orissa as well. That province will, however, make its own arrangements for examining its candidates from the next year.

Survey Education Advisory Board.

874. Prior to the year under review, the first year examination and the second year final examination of the Mainamati Survey School, Comilla, were conducted by the Director of Surveys, Bengal. In this year, these examinations were for the first time controlled by the Survey Education Advisory Board. The first year examination of the school was merged in the Amin examination, the course followed being the same as for the Amin classes in the other schools. The Amin class at Dacca was closed. The number of candidates who appeared at the Amin examination was 60 of whom 47 passed. The examination fees amounted to Rs. 600 and the cost of conducting the examination was Rs. 580. Sixteen candidates appeared at the second year examination of the Mainamati Survey School of whom 13 were successful. The expenditure on this examination was Rs. 224 against fee receipts of Rs. 320. A text-book on surveying for the Amin classes by Babu R. L. Banerjee, Principal of the Mainamati Survey School, was published.

City and Guilds Examination Committee.

875. This year 50 candidates appeared in textile subjects and 62 in other subjects, the passes being 34 and 24, respectively. At the special examination for girls for domestic subjects, which is held at Kurseong, 36 candidates appeared of whom 28 passed. The total cost of conducting the Committee's examination amounted to Rs. 1,050. The examination fees collected from the candidates amounted to Rs. 1,084.

Government Commercial Institute.

876. The number of students on the roll increased; there were 254 in the day classes and 545 in the various evening classes. In the evening classes shorthand, typewriting and book-keeping attracted the largest number of students, about 150 in each case. The Board have submitted proposals for instituting a Bengal examination for auditors and it may be noted that there were 48 students in the first year class in Accountancy and Auditing at the Institute. Sanction has been accorded for the recruitment of a highly qualified Principal on Indian Educational Service terms and it is hoped to fill this important vacancy shortly. The total direct expenditure was Rs. 40,651.

Government Weaving Institute, Serampore.

877. It has been decided that the Institute should remain at Serampore instead of being removed to another site nearer Calcutta. It is intended as soon as possible to erect suitable buildings on the land which was purchased by Government some years ago for the purpose. Applications for admission to the higher classes have greatly increased, and the question of accommodation has thus become acute. As a temporary measure, a house has been rented to provide additional class-rooms. The numbers in the three years were 70, 27, and 22, respectively. In the hostels for Hindus, Muhammadans and Christians the numbers were 104, 27, and 7, respectively, including artisans. Of those who passed out during the year, 3 are employed in mills and weaving factories, 2 in dye factories, 7 as weaving and dyeing teachers, 1 in a co-operative industrial society, and 2 have returned to their respective provinces after the completion of their training.

In the artisan classes which have a one-year course, there were about 81 pupils from all parts of Bengal and Bihar and Orissa of whom 31 passed out. The total direct expenditure on the Institute was Rs. 37,388. During the year under report a sum of Rs. 3,180 was advanced as loans to 65 ex-students of the Institute and its outlying district and peripatetic weaving schools.

At the 6 district weaving schools and the 7 peripatetic weaving schools there were 503 students of whom 350 passed out.

Mainamati Survey School.

878. A managing committee and also a board of visitors have been constituted during the year. The school occupies buildings of a temporary character and in June the main building was struck by lightning and burnt down. Considerable damage was done to furniture and equipment and most of the records were burnt but no person was injured. Previous proposals

for permanent buildings had been postponed for want of funds, but fresh plans and estimates have been prepared. In the meantime, the classes are being held in other buildings of the school and a new temporary structure is being erected. There was an unusually large number of applications for admission to the first year course and the qualifications of the selected candidates were higher than in previous years. Forty candidates were admitted to the first year and thirteen to the second year class. The total direct expenditure amounted to Rs. 18,417.

Board of Control for Apprenticeship Training.

879. A Board of Control for Apprenticeship training was constituted with a view to improving the training of engineering apprentices and so assisting in the development of the industries of the province. This Board has had monthly meetings since June 1921 and these have been well attended. The work done includes among other things the revision of the Mechanical and Electrical classes at the Bengal Engineering College, the making of arrangements for the apprentices' admission examinations, and the introduction of the improved scheme of training at the Kanchrapara workshops.

Calcutta Technical School.

880. In establishing a Calcutta Technical School a very important educational project has been taken in hand. It will, in due course, enable a greatly improved training to be provided for a large number of apprentices and others employed in engineering works in and near Calcutta, besides forming the nucleus of a technological institute to provide higher technical training in various subjects. During the year the purchase of the site selected was completed at a cost of about 8½ lakhs.

State Technical Scholarships.

881. No state Technical Scholarship was awarded during the year, but three scholars from this province were completing their training in England. These scholarships have been provincialised from 1st April 1921.

CHAPTER VIII—MISCELLANEOUS.

Ecclesiastical Jurisdiction.

Bishop of Calcutta and Archdeacon of Calcutta, 1814.

882. The Presidency of Bengal lies within the ecclesiastical jurisdiction of the Bishop of Calcutta. By the Statute 53, Geo. III, Chapter 155, provision was made for the appointment of a single Bishop for the whole of India, and the Sovereign was empowered to grant to the Bishop such ecclesiastical jurisdiction and the exercise of such episcopal functions as His Majesty might think necessary for the administration of holy ceremonies and for the superintendence and good government of the ministers of the Church establishment. Under the authority of this statute, Letters Patent for the Bishopric of Calcutta were issued under the date of the 2nd of May 1814, establishing the See of Calcutta, subordinate to the Archiepiscopal See of the Province of Canetbury and constituting the Archdeaconry of Calcutta. The Judges of the Supreme Court of Judicature at Calcutta and the Members of the Council were appointed the King's Commissioners delegate to hear appeals from the decisions of the Bishop and his Commissaries.

Bishop of Calcutta Metropolitan, 1835.

883. The Statutes 3 and 4, Will, IV, Chapter 85 empowered the Sovereign to found and constitute the Bishoprics of Madras and Bombay, and constituted the Bishop of Calcutta Metropolitan. The Bishoprics of Madras and Bombay were accordingly constituted by Letters Patent, leaving the Metropolitical jurisdiction with the Bishop of Calcutta. The jurisdiction of the Bishop of Calcutta has also been further curtailed by the subsequent formation of the Bishoprics of Lahore, Rangoon, Lucknow and Nagpur.

Chaplains of the Church of Scotland 1835.

884. The Statutes 3 and 4, Will. IV, Chapter 85, also provided for the appointment of two Chaplains of the Church of Scotland, to be inducted and ordained by the Presbytery of Edinburgh according to the forms and solemnities used in the Church of Scotland, and to be subject to the spiritual and ecclesiastical jurisdiction in all things of the Presbytery of Edinburgh.

Indiin Christian Marriage Act, 1872.

885. Under the Indian Christian Marriage Act of 1872, the Local Government has power to give licenses to ministers of religion to solemnize marriages, to appoint marriage registrars, and to license persons to grant certificates of marriage between Christians, but in other respects it exercises no ecclesiastical jurisdiction.

Ecclesiastical.

Establishment.

886. The Ecclesiastical Establishment in Bengal during the year 1921-22, paid entirely or in part by Government, consisted of the Lord Bishop of Calcutta, the Archdeacon of Calcutta, the Domestic Chaplain to the Bishop, the Registrar of the Diocese, 14 Chaplains and 8 Clergymen of the Additional Clergy or other Societies of the Church of England, 3 Chaplains of the Church of Scotland, the Most Reverend Archbishop Dr. Brice Meuleman, S.J., and one Priest of the Roman Catholic Church.

Chemical Examiner's Department.

[Report of the Chemical Examiner for the year 1921.]

General.

887. During the year Lieutenant-Colonel W. H. Dickinson, I.M.S., Dr. Hemnath Adhicary, B.A., M.B., and Major T. C. Boyd, I.M.S., were at different times in charge of the Chemical Examiner's Department.

888. There was a marked decrease in the number of analyses performed, viz., 929 examinations as against 2,879 in 1920. The largest falling off occurred in the number of articles received from the Excise Department, the Presidency Magistrates and the Chief Inspector of Explosives. Out of 19 samples of milk examined 7 were found to be of good quality and 12 adulterated; while of 17 samples of *ghee* analysed nine were good quality and the rest adulterated. Total of cases.

889. In the Medico-legal Department 1,251 cases were investigated during the year as against 1,506 in the preceding year. The total number of articles examined in this department was 2,212 as compared with 2,952 in the previous year. Six hundred and ninety-four human viscera were examined; the percentage of detection in human poisoning cases was 44·68 as compared with 41·85 in the previous year. In animal poisoning cases the percentage of detection fell from 57·10 in 1920 to 49·19 in 1921. Medico-legal work.

Veterinary Department.

[Report of Veterinary College and of the Civil Veterinary Department, Bengal, for the year 1921-22.]

890. The number of students at the Bengal Veterinary College at the end of the session was 143, of which number 71 belonged to Bengal, 47 to Bihar and Orissa, 8 to the United Provinces, 6 to Assam, 6 to Burma, 1 to the Central Provinces, 1 to Ceylon, 1 to Iraq, 1 to Gangpur State, and 1 to Manipur State. During the year 36 students graduated from the college of whom 12 belonged to Bengal. Of the new graduates 11 have been employed as Veterinary Assistants. Bengal Veterinary College.

891. During the year 1,946 patients were treated and 442 operations performed against 2,097 and 460, respectively, during the corresponding period of the previous year. There were 15,159 prosecutions under the Prevention of Cruelty to Animals Act, but only 193 animals were sent to the College Infirmary by the trying magistrates. College Hospital.

892. All the stables and cattle sheds in the Calcutta glanders area were regularly inspected by the glanders staff. Glanders was detected in 23 stables against 23 in the previous year. In the mufassal only 10 animals either succumbed to the malady or were destroyed under the provisions of the Glanders and Farcy Act. Glanders and Farcy Act.

893. In the year under report there was a marked decrease in the mortality of animals from contagious diseases, the total number of deaths reported being 16,142 as against 19,344 in the previous year. Of the total, rinderpest was responsible for 13,304 deaths as against 17,425 in the previous year. The districts which suffered most from this disease were Rajshahi, Tippera, Murshidabad, Mymensingh, Burdwan and Bakarganj. There were in all 458 outbreaks of rinderpest, hæmorrhagic septicæmia, anthrax and black quarter, and 76,340 animals were inoculated as against 86,354 animals, in 539 outbreaks in the previous year. The death-rate amongst the inoculated cattle was only ·5 per cent. for the whole province. Leaflets dealing with the prevention and treatment of cattle-diseases were freely distributed as in previous years. The itinerant Veterinary Assistants visited 12,084 villages and treated 67,511 animals as against 12,756 villages and 69,584 animals in the previous year. With a view to greater and prompter attention being paid to the welfare of the live-stock of the province, arrangements were made to have a course of lectures delivered by the stationary Veterinary Assistants at Dacca, Chinsura, and Rangpur to the demonstrators of the Agricultural Department. Civil Veterinary Department.

894. Two new dispensaries were established at Midnapore and Kalimpong during the year, thus bringing the total number of such institutions to 39. The number of patients treated at these dispensaries was 43,800 as against 41,074 in the previous year. Dispensaries.

895. The number of stud-bulls kept by Government and local bodies increased from 132 in the previous year to 156 in the year under report. Of these, 62 are the property of local bodies. Breeding of cattle.

Raymond Research Laboratory.

896. The laboratory continued to do good and useful work. Brains of 116 animals suspected of rabies (of which number 67 proved to be rabies) and 445 pathological specimens were examined and reported on.

Zoological Garden, Calcutta.

[Annual report of the Honorary Committee for the year 1921-22.]

Finance and Statistics.

897. The financial condition of the garden was on the whole satisfactory, in spite of the high cost of food-grains and the decrease in the entrance receipts. The entrance receipts amounted to Rs. 65,854-6-0 a decrease by Rs. 1,991-8-0 as compared with the previous year. The decrease was primarily due to the general prevailing unrest, manifested in train and tram strikes and *hartals*, which interfered with the influx of visitors from the mufassal. Including the Government contribution of Rs. 20,000 the total receipts amounted to Rs. 1,17,876-6-7 and the total expenditure to Rs. 1,05,023-3-7, leaving a surplus of Rs. 12,853-3-0. During the year 840,055 persons or 2,561 less than in the previous year visited the garden. The number of mammals, birds and reptiles in the garden at the close of the year was 317, 2,041 and 190, respectively, against 328, 2,033 and 171 at the close of the previous year. The garden was, as usual, open free to the public one day in each month and 33,690 persons availed themselves of the concession.

Auxiliary Force.

898. The Auxiliary Force continued to maintain its efficiency and Advisory Committees for the military areas of Calcutta, Dacca, and Jalpaiguri were reconstituted for the year.

Steps were also taken to form a Bengal Battalion of the Indian Territorial Force to be styled the 94th Russell's Infantry. An Advisory Committee was created to consider ways and means of making the experiment a success.

Administration of the Cinematograph Act.

899. For the administration of the Cinematograph Act, 1918 (II of 1918), as amended by the Cinematograph (Amendment) Acts, 1919 (XXII of 1919), a Board known as the Bengal Board of Censors was constituted in 1920 for the purpose of examining and certifying films as suitable for public exhibition. The Board consists partly of official, partly of non-official members who are paid by fees. To meet the expenses incurred in the administration of the Act a local fund called the Cinematograph Act Fund was constituted with a view to making the Board a self-supporting body from the fees received for the examination of films. During the year, owing to the unfavourable rate of exchange, the high cost of films and the increased customs duty, the import of films dropped considerably and the income of the fund was reduced so much that Government had to advance a loan to enable the Board to meet necessary expenditure. During the year 1921, the Board held 16 meetings and passed orders for the certification of 901 films. Certificates were also issued for 106 old films. Seven hundred and ninety-five films were actually examined by the Board's Inspector containing 1,724,134 feet or nearly 362⅝ miles of film. In six instances certificates were refused.

Administration of the Electricity Act.

900. During the year one license for the supply of electric energy was granted by the Government of Bengal under the Indian Electricity Act, 1910, viz., The Chittagong Electric License, 1920, to Mr. M. C. Ghosal. An application from the United Agency, managing agents for the Mymensingh Bank, Commerce and Industry, Ltd., for the grant of a license for the supply of electricity to the town of Mymensingh was under consideration.

Under section 9 (2) of the Indian Electricity Act, 1910 (1) The Bhatpara Electric License, 1920, was transferred and granted to the Bhatpara Power Company, Ltd., and (2) The Raniganj Coal-fields Electric License, 1920, was transferred and granted to the Coal-fields Power Company, Ltd.

Permission was granted under section 27 of the Act to the following:— (1) The Coalfields Power Company, Ltd., for the supply of energy to certain collieries situated outside the area of supply by the Company; and (2) The Dacca Electric Supply Company, Ltd., for the supply of energy to the Military Police Lines, Peelkhana, Dacca.

Sanction under section 28 (I) of the Act was accorded to the supply by the Gouripore Company, Ltd., of electric energy to (1) the jute mills proposed to be built at Bansberia near the East Indian Railway station at Bansbatti, and (3) to the East Indian Railway for lighting the Bandel Junction station.

The application submitted by the Dacca Electric Supply Corporation, Ltd., for an extension of the area covered by the Dacca Electric License, 1910, to Peelkhana was under the consideration of Government. During the year the terms of the Calcutta Electric Supply Corporation License, 1907, were altered so as to defer the option of compulsory purchase until the year 1938.

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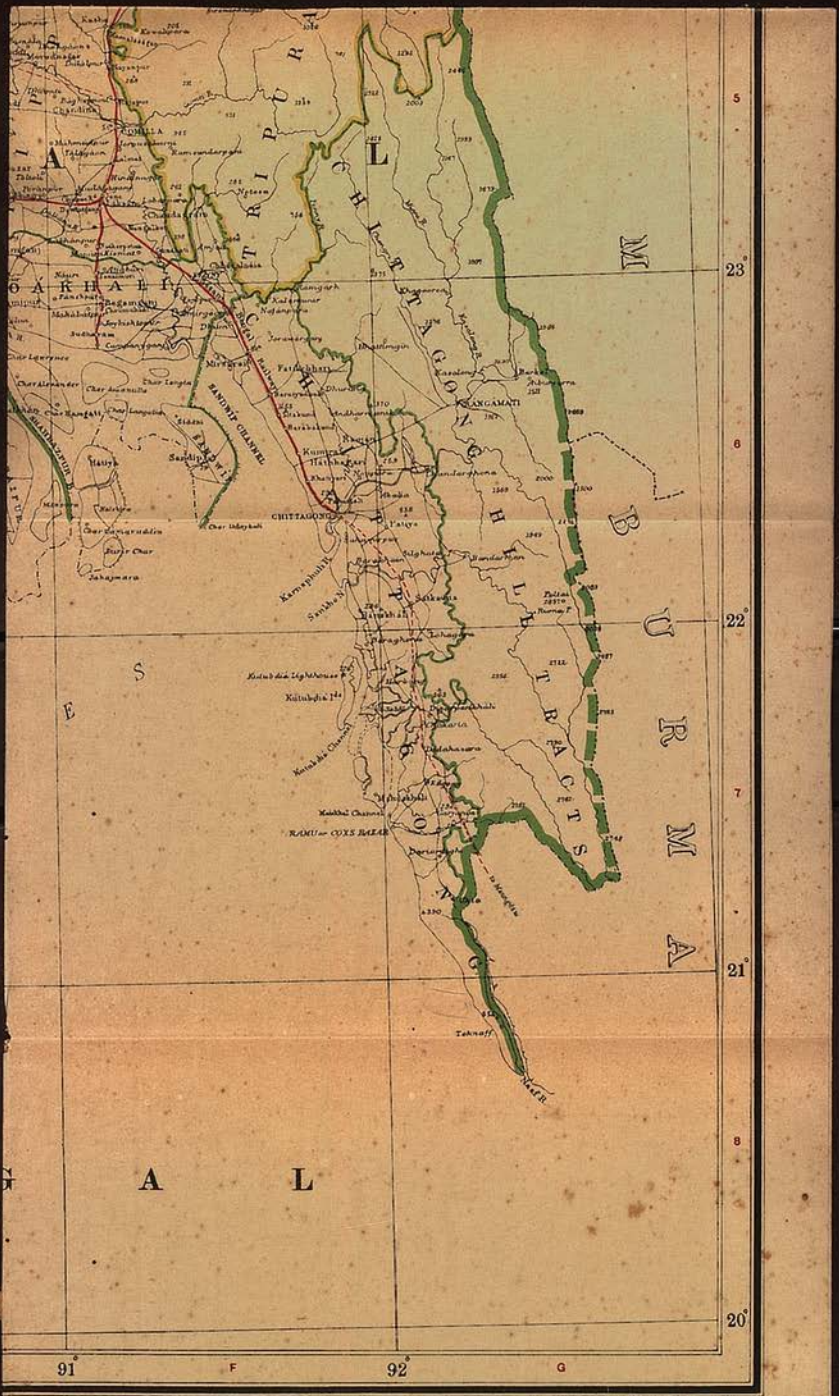
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Kutubdia Channel
Matabari Channel
Sandwip Channel
Karnaphuli R.
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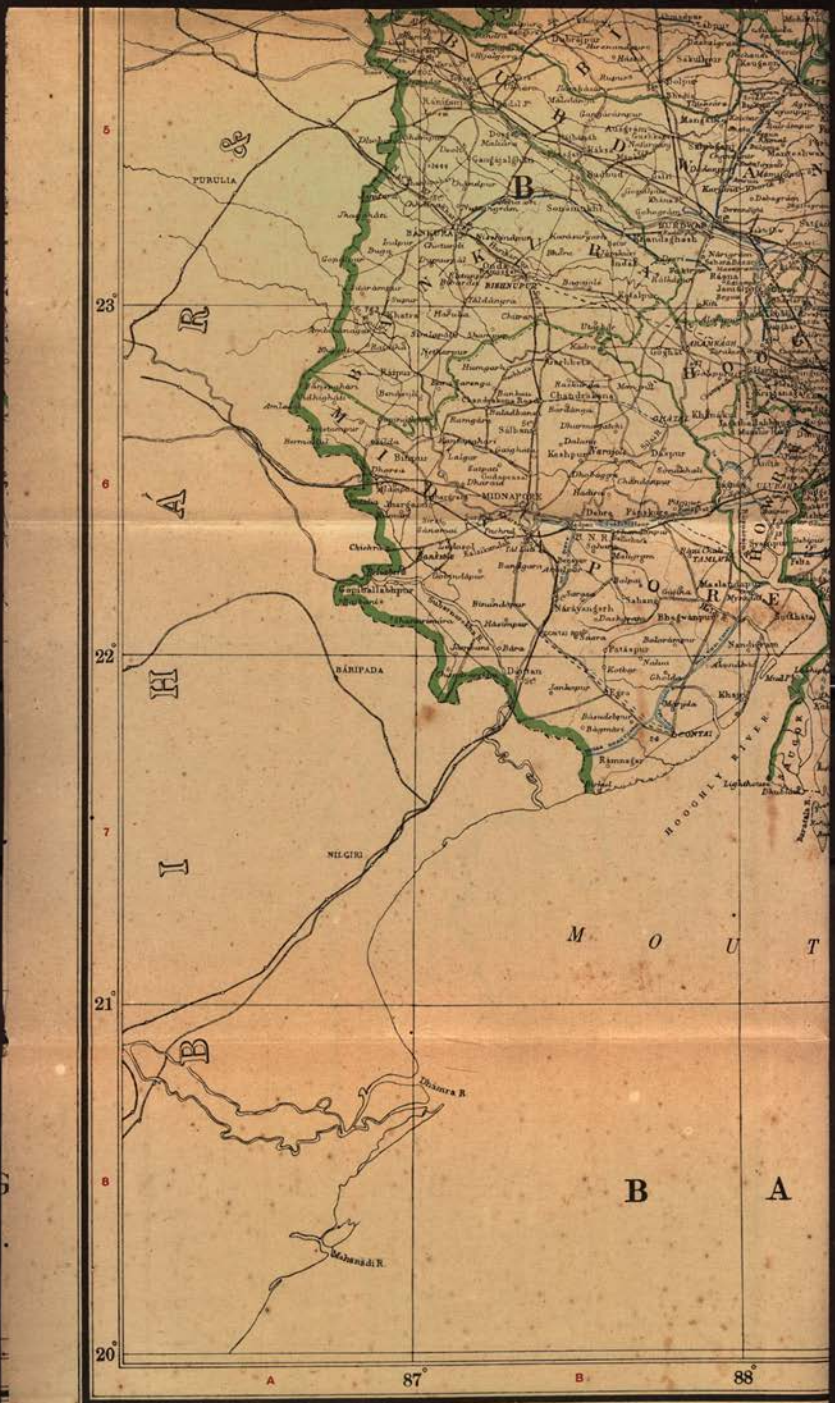

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NOTE.—The longitudes are referrible to the Greenwich meridian, taking that of Madras observatory as 80°-17'-21" East. They require a correction of —2'-27" to make them accord with the most recent value of the geodetic longitude of that observatory, *viz.*, 80°-14'-54".

THE PRESIDENCY OF

BENGAL

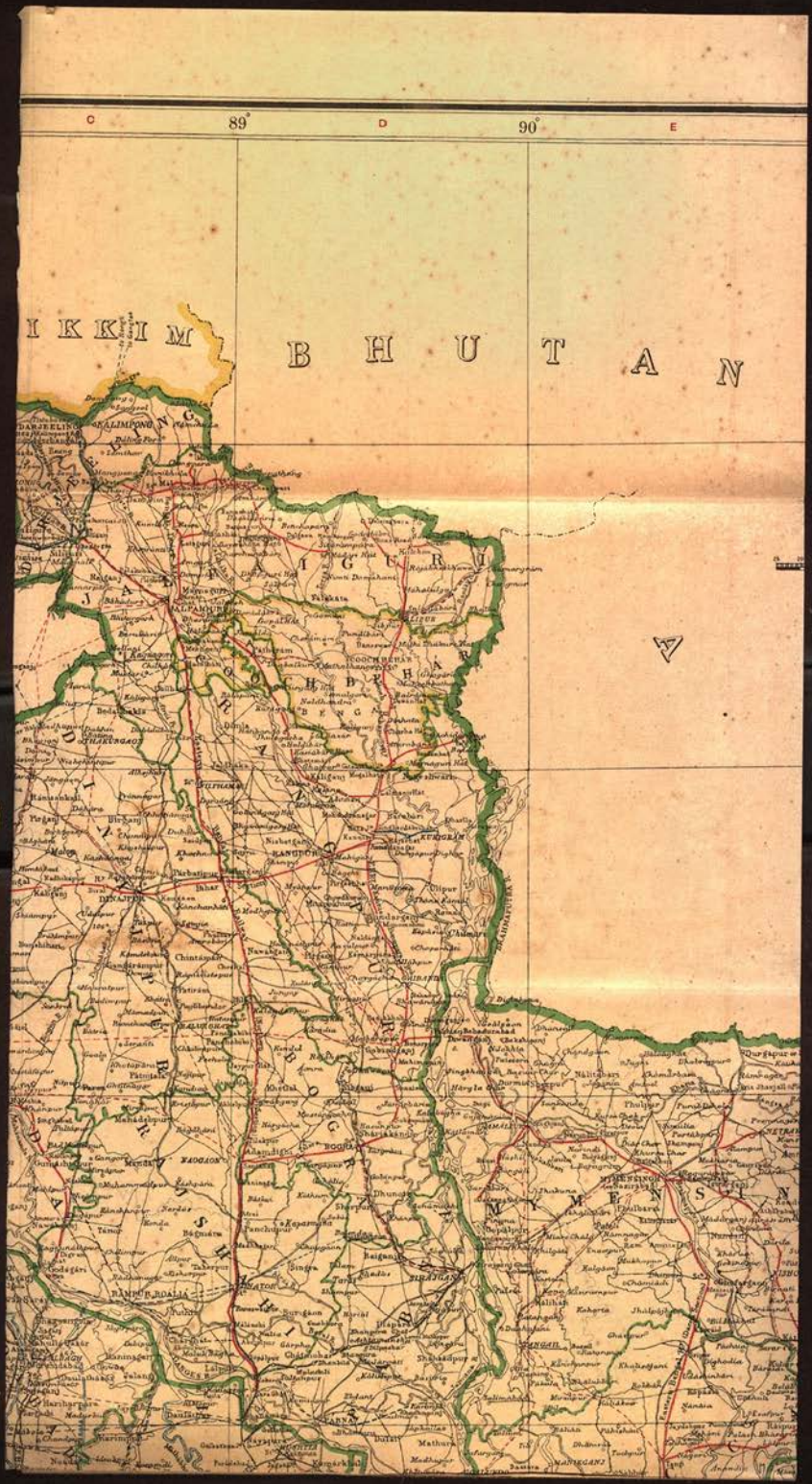
1921 - 22

Scale 1 Inch = 16 Miles or 1/1013360

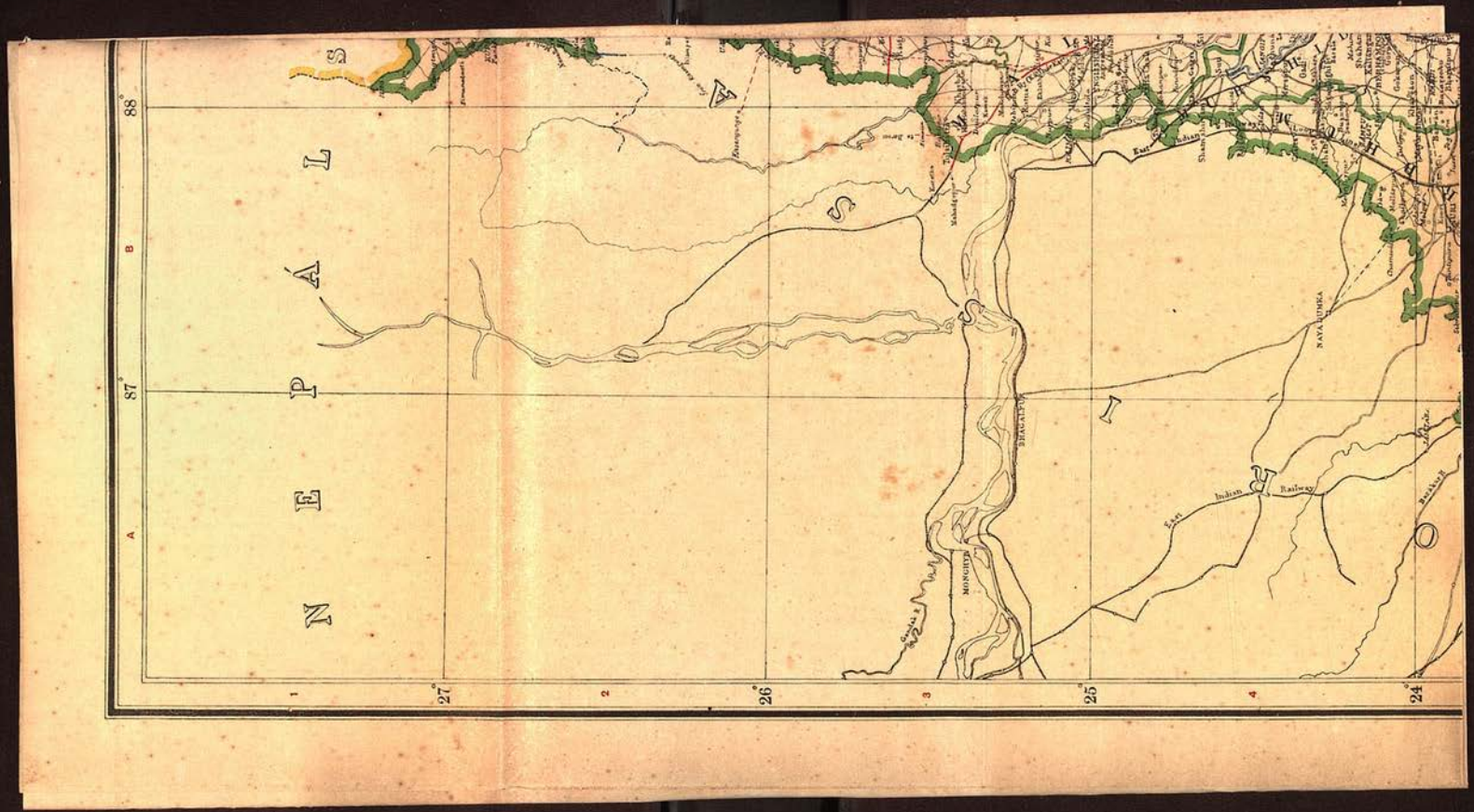
REFERENCE

Province Boundary Defined	
" " Undefined	
State "	
District "	
Sub Division "	
Division "	
Boundaries "	
Standard Gauge	(Open for Traffic) (Under Construction) (Surveyed or Projected)
Metre "	
Special "	
Metalled road	
Unmetalled "	
Canals	

The numerals denote the height of feet above mean sea level.



C
89°
D
90°
E
IKKIM
BHUTAN
DARJEELING
KALIMPONG
JALPAIGURI
ALIPUR
COOCHBEHAR
BENGAL
KUMIGRAM
DINAJPUR
BOGRA
RAMPUR BOALIA
MYMENSINGH
SIRAJGANJ
MANIKGANJ



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